OLD!

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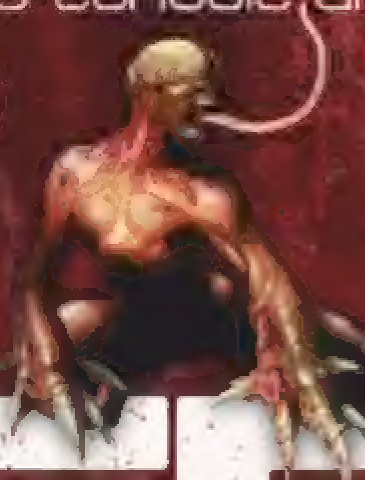

THE WORLD OF
MARIO SPIN-OFFS
PLUNDERING THE PLUMBER'S SIDE PROJECTS, FROM KARTING TO TENNIS

CREATING
RUFF 'N' TUMBLE
JASON PERKINS RETURNS TO HIS ACTION-PACKED AMIGA RUN-AND-GUN

MONSTER BOY AND THE CURSED KINGDOM
IS THIS THE BEST WONDER BOY GAME OF ALL TIME?

RESI-RECTING

RESIDENT EVIL 2

CAPCOM'S **YOSHIAKI HIRABAYASHI** TAKES US INSIDE THE SEMINAL SURVIVAL HORROR SEQUEL

+
JOUST
DOG'S LIFE
TOPO SOFT
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SUPER METROID

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ALL YOU NEED TO KNOW TO BEAT IREM'S BRAWL IN THE BIG APPLE

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HOW LARIAN STUDIOS KICKSTARTED A MUCH-LOVED RPG FRANCHISE

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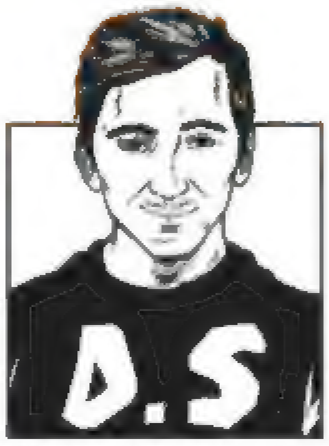
THE RETROBATES

WHAT'S THE SCARIEST GAME YOU'VE PLAYED?

DARRAN JONES

Outlast. It's absolutely terrifying. At one point I had to stop playing because I genuinely thought I'd have a heart attack.

Expertise:
Juggling a gorgeous wife, two beautiful girls and an award-winning magazine
Currently playing:
Super Smash Bros Ultimate
Favourite game of all time:
Strider



DREW SLEEP

I'm usually good with fear, but Alien: Isolation is harrowing. That aside, it's a near-perfect game that any sci-fi fan should play.

Expertise:
Training a Bugbear to assassinate the RG team
Currently playing:
Marvel's Spider-Man
Favourite game of all time:
Final Fantasy VIII

NICK THORPE

Eternal Darkness still takes that title, as it managed to combine supernatural horror with mundane but very real fears, like losing your save data.

Expertise:
Owning five Master Systems (I sold two)
Currently playing:
Monster Boy And The Cursed Kingdom
Favourite game of all time:
Sonic Tha Hedgehog

SAM RIBBITS

I can't say I've ever felt 'scared' by a game, but Until Dawn: Rush Of Blood made me jump a quite a lot.

Expertise:
Taking ill-timed holiday
Currently playing:
Pokémon: Let's Go, Pikachu!
Favourite game of all time:
Croc: Legend Of The Gobbos

JON WELLS

The original Doom – six years old, lights off, speakers on! What was I thinking!?

Expertise:
Designing spreads when Sam isn't looking
Currently playing:
Call Of Duty: Black Ops 4
Favourite game of all time:
Super Mario World

DAVID CROOKES

Silent Hill 2, which just plays on a sense of unease from the very start and never lets go.

Expertise:
Amstrad, Lynx, adventures, Dizzy and PlayStation (but is it retro? Debate!)
Currently playing:
Resident Evil Director's Cut
Favourite game of all time:
Broken Sword

PAUL DRURY

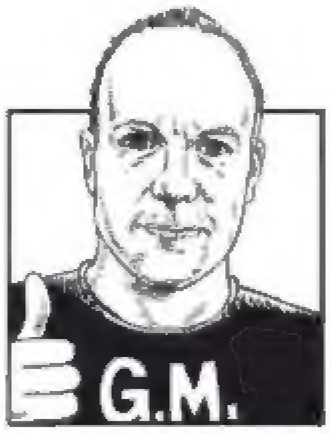
Phantom Slayer on the Dragon 32. It channels the spirit of that 'dark and lonely water' public information film from the Seventies to terrifying effect.

Expertise:
Chris Anderson's suits
Currently playing:
BurgerTime
Favourite game of all time:
Sheep In Space

MARTYN CARROLL

The original Silent Hill. Particularly the Midwich Elementary School, where the children are most definitely damned.

Expertise:
Sinclair stuff
Currently playing:
Super Mario Party
Favourite game of all time:
Jet Set Willy



GRAEME MASON

Without doubt Alien: Isolation. I had to limit play to 60-minute sessions in order to avoid becoming a gibbering wreck.

Expertise:
Adjusting the tape azimuth with a screwdriver
Currently playing:
Uncharted: Drake's Fortune
Favourite game of all time:
Resident Evil 4

LOADING...

It's little wonder that Capcom's Resident Evil series is one of the most popular horror franchises of all time. It's a franchise that's never afraid to take risks and it has a cast of memorable characters that you're desperate to see survive until each game's conclusion. Capcom's 1998 sequel not only built on the DNA that Shinji Mikami created in 1996, but also expands it massively, moving the drama from the confines of an macabre mansion and setting it in a nearby city – nicely ramping the action of the series in the process. While Resident Evil 2's creative team have scattered to the four winds, we've been fortunate enough to speak to Yoshiaki Hirabayashi who is not only tasked with producing Capcom's incoming Resident Evil 2 remake but intimately knows the PlayStation original. As a result we've got a fascinating insight into why Capcom's sequel struck a chord with gamers and how Hirabayashi has harnessed that for the remake.

If zombies aren't for you, then you can enjoy our excellent ultimate guides on Vigilante and Galaxy Force or go behind the scenes of Fast Food, Divine Divinity, Dog's Life and Amiga blaster, Ruff 'N' Tumble. Oh and make sure you check out our subscription offer on page 28, it's a great way to support the mag.

Enjoy the magazine!

retro GAMER
retro GAMER
RESIDENT EVIL 2

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I'M GETTING SAND IN MY SHOES.

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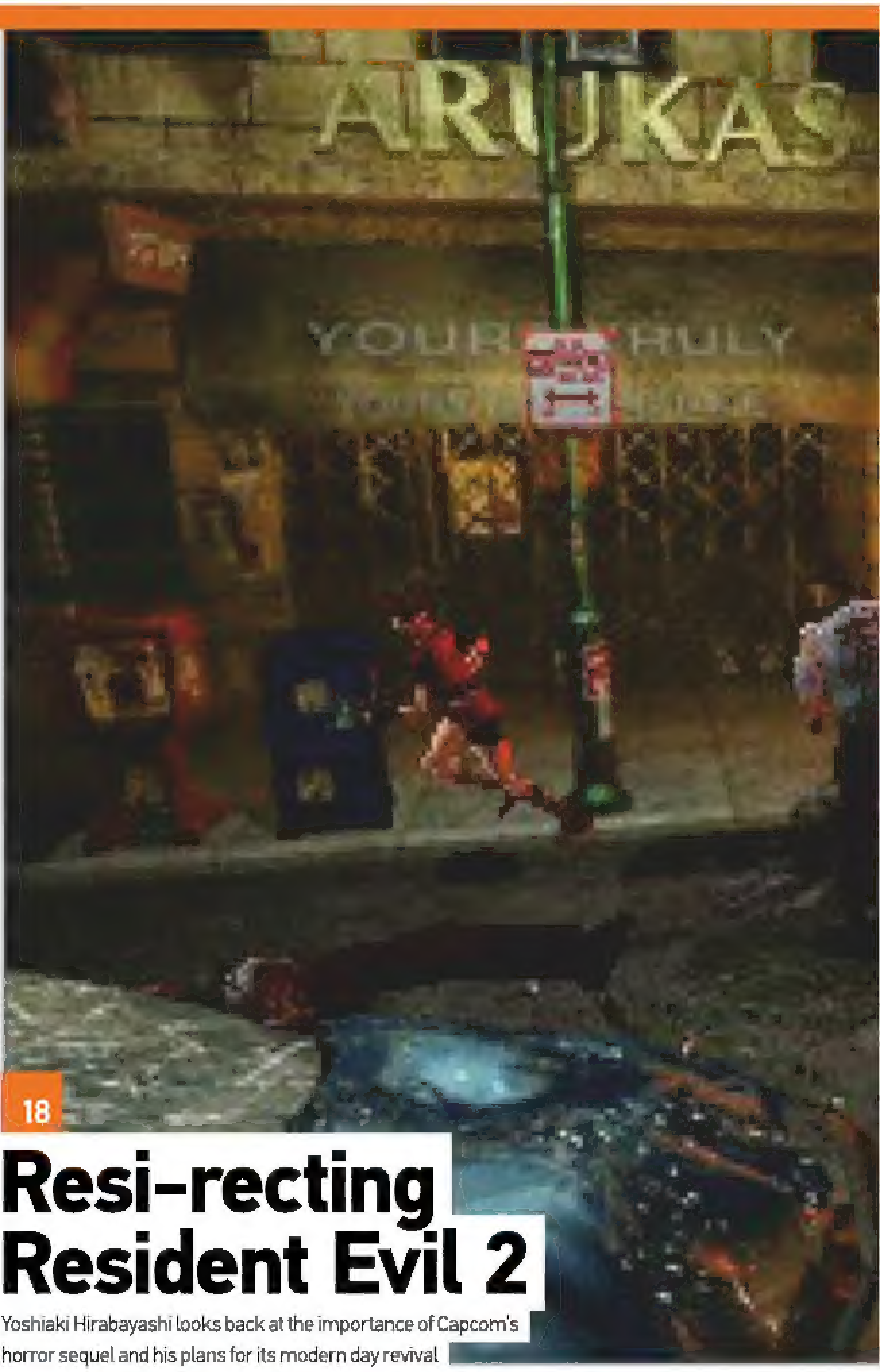

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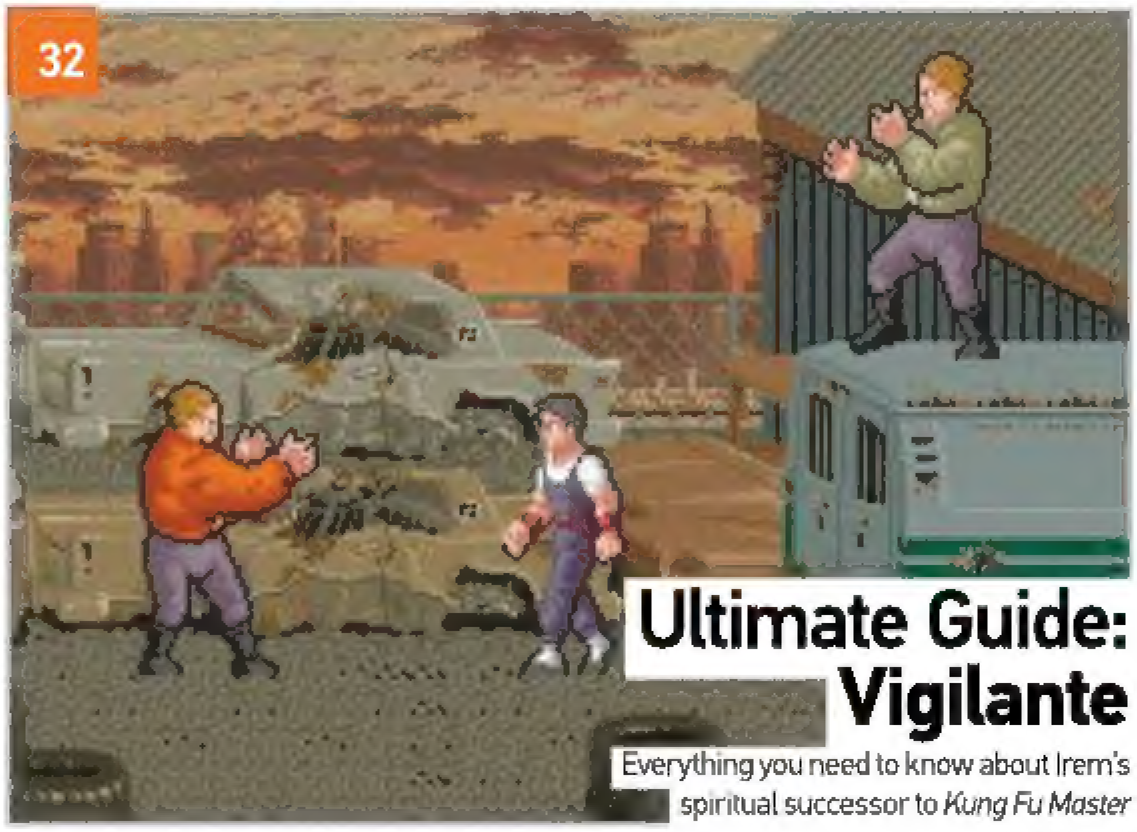

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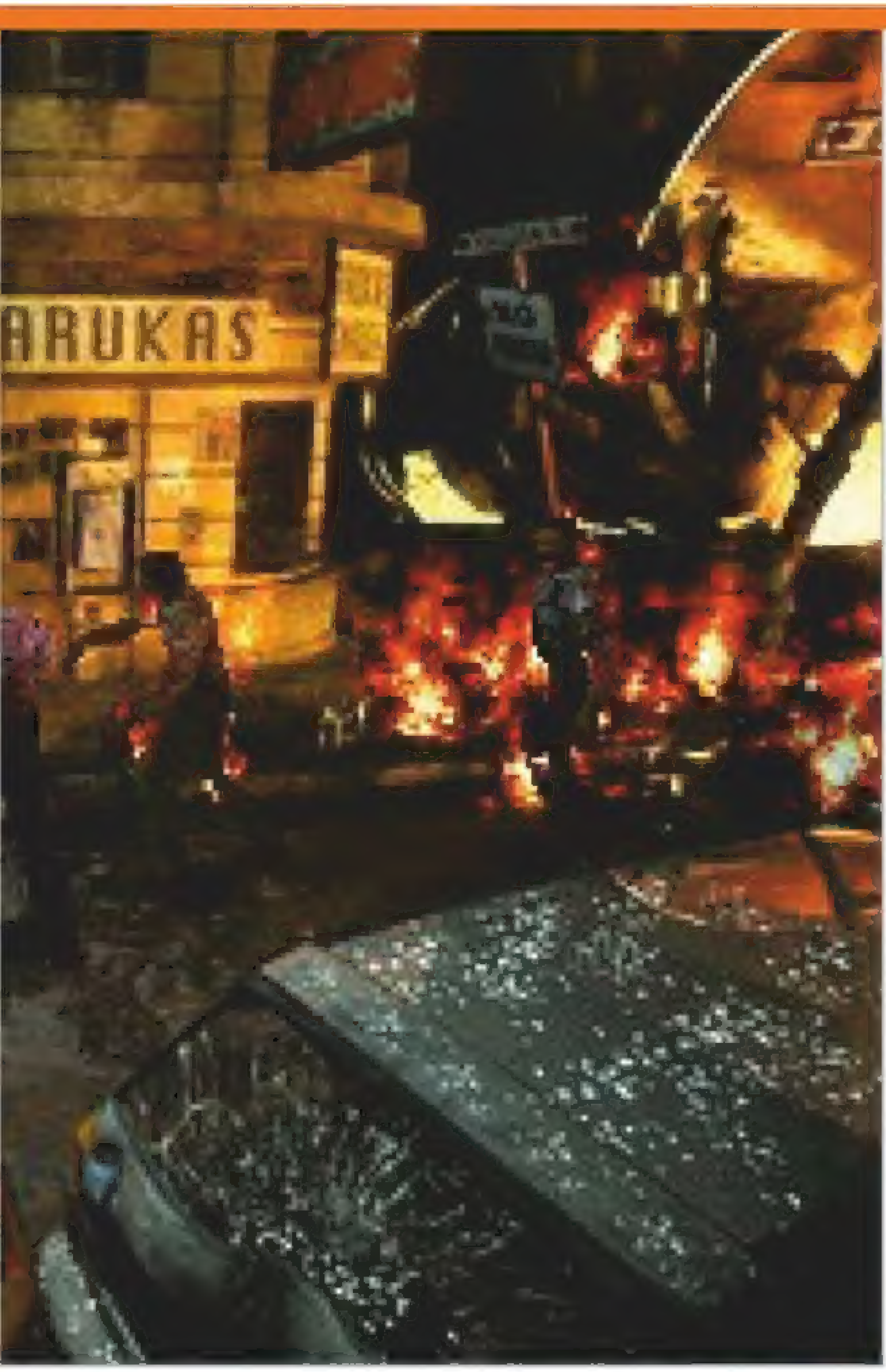

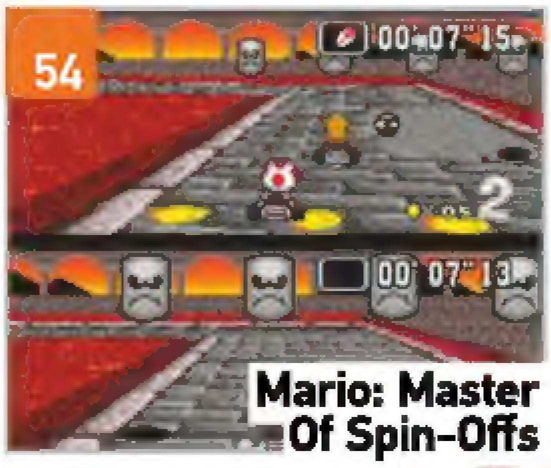

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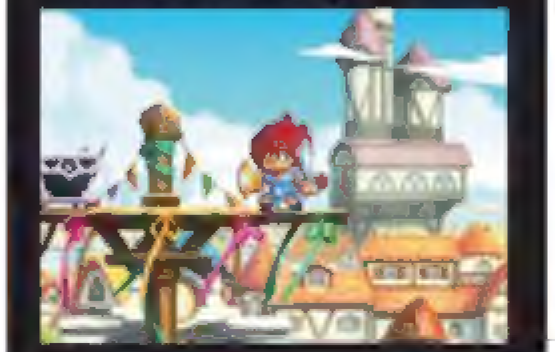

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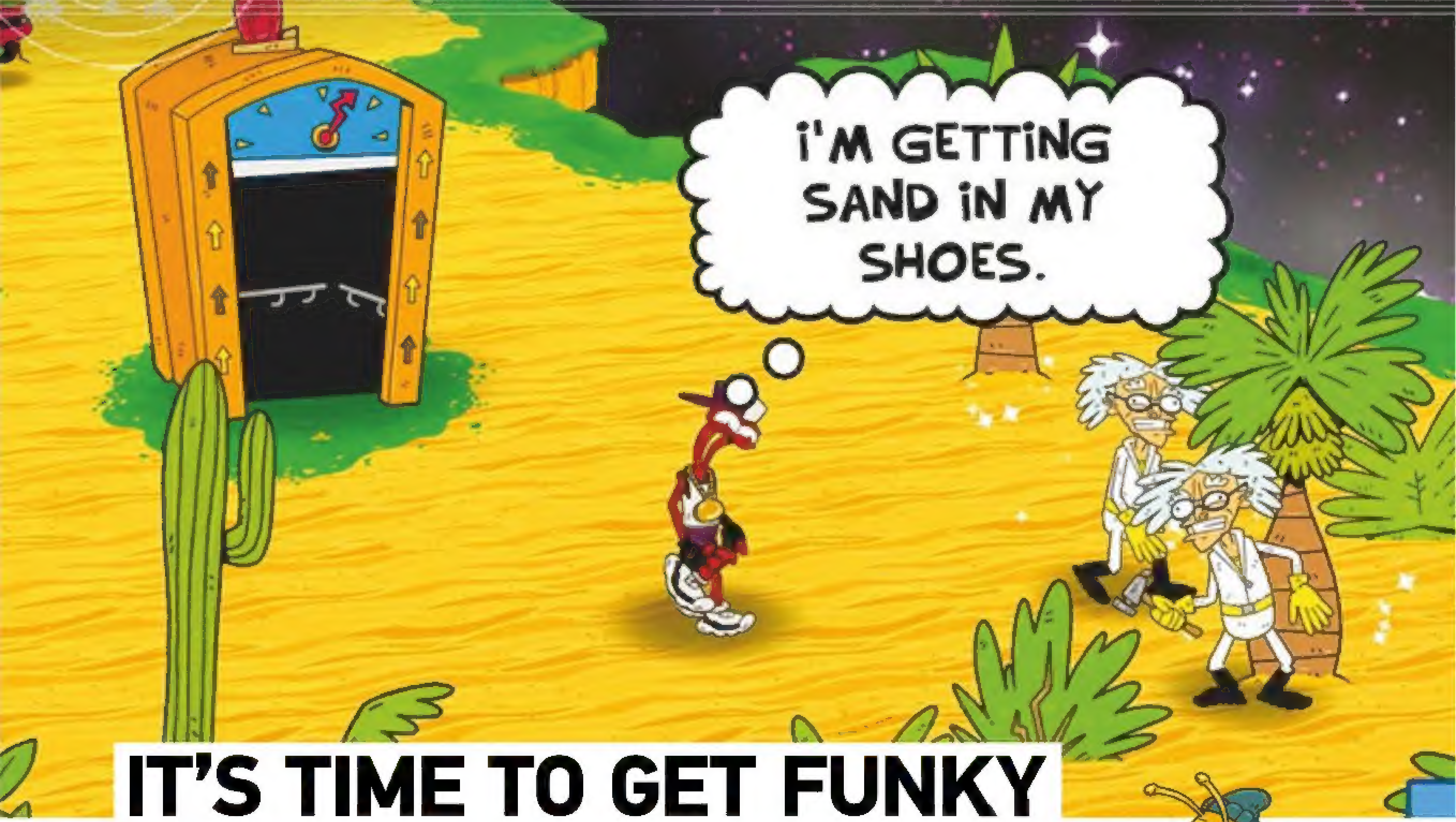
LEVEL 3
I'M GETTING SAND IN MY SHOES.

IT'S TIME TO GET FUNKY

Greg Johnson lays down the beats about ToeJam & Earl

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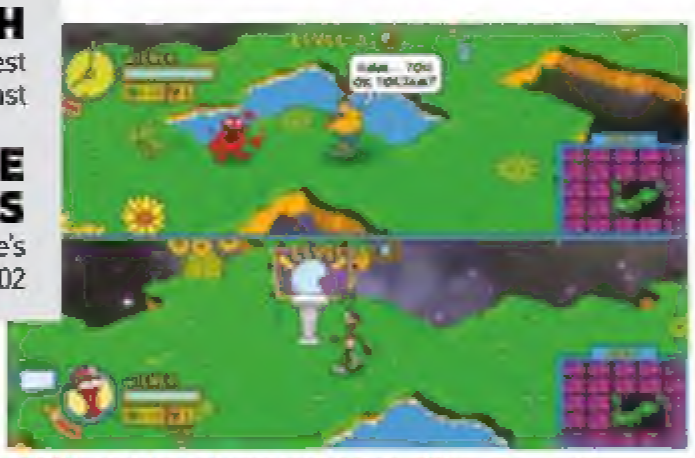
Nick makes another stop. This time he's arrived in February 2002

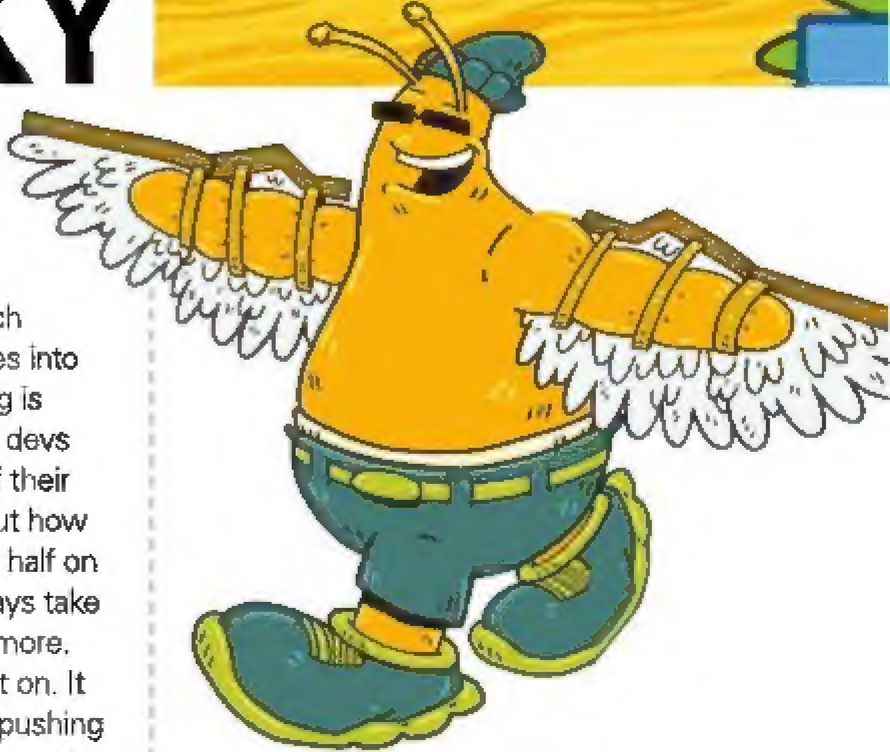
Kickstarter backers have often had to endure long waits for their projects to appear and the release of ToeJam & Earl: Back In The Groove is no different. Originally due in 2015, it now has an official release date and will appear at the beginning of March. Greg Johnson explains why it's going to be worth the wait.

Back In The Grove was scheduled for 2015. What unseen problems have you had to overcome?
When you are an indie developer there is really no development problem that can't be solved with more time and sometimes more talented people. The real issue is always the same: there is never enough time to do what you need to do – which to be very blunt, really translates into 'never enough money'. Funding is always the challenge and indie devs generally need to spend half of their time and energy worrying about how to pay everyone, and the other half on building the game. Things always take longer than you plan and cost more. That is one thing you can count on. It takes a lot of fortitude to keep pushing ahead when you can't see how you're going to make it all work.

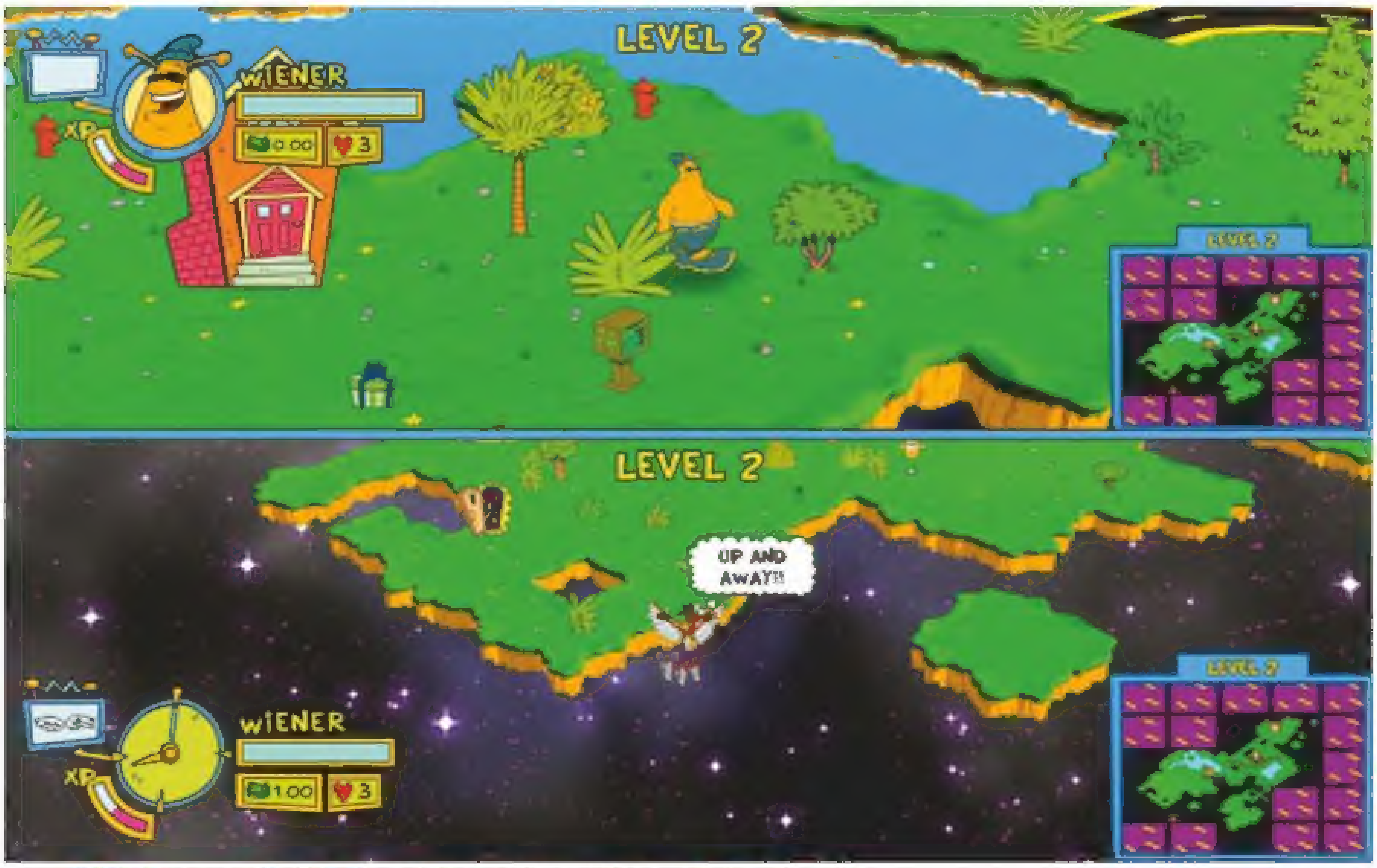

»[PC] Greg told us that screen real estate and UI was the team's main issue, when working on Back In The Groove's multiplayer mode.

How does it feel to be on the final stretch of development?
Actually, it's very similar to when you are about to take a big trip that you have been planning for a long time. We are still in the final push, and trying to make sure we don't forget anything. It is exciting, but once the plane actually takes off and we can sit back and relax a bit it will feel much more real. I am looking forward to the launch.

What final changes have you been making ahead of launch?
Right now we are doing optimisation work to improve the framerate, and final bug hunting, especially for network play, which is always the toughest part to debug. Of course, there are still a few little things: for example, I have a shortlist of sound effects that the team asked me to redo which were mainly requests from fan testers. This game is just one detail after another. My team keeps asking me when I am going to design something simpler. Ha!



How important has it been to continually relay information to your backers?
It's not important at all. The backers don't really care if you keep them

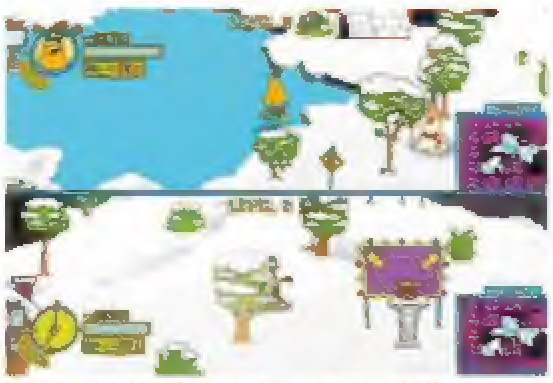


» [PC] The distinctive style of Back In The Groove should be instantly recognisable to fans of the Mega Drive original.

informed. They will always simply trust you and don't mind waiting. Um… wait. Let me try that again… yes, of course it is extremely important! Needless to say, there are a few backers who are happy to 'fire and forget' but a large number do crowdfunding expressly so that they can be part of the process and 'in the loop'. It is important to respect that and to value the relationship, and also it requires that developers (and publishers) trust backers with information, and trust that backers will understand if things change. Most of our backers (almost all, in fact) were very understanding once we filled them in on our considerations and treated them with respect. Once you offer up trust you usually get it back. I hope other developers will be willing to risk a bit more, and I hope we did a good enough job with communication.

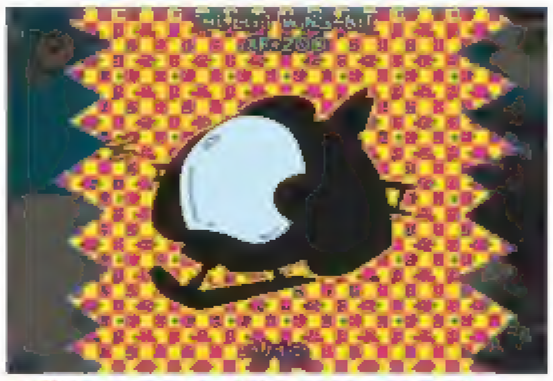
What technical challenges have you faced throughout the development period?

Networking was our biggest challenge. Man, did we ever underestimate how complex that was going to be! I am



»[PC] Back In The Groove will have plenty of different looking environments to explore.

really glad we ended up making it all work because there are so many friends who grew up playing this game together that no longer live near each other, but… geez, that probably literally doubled the development time on this project. Framerate was also a big challenge for us, especially porting to consoles. When you are pushing to hit deadlines on the PC you don't usually plan enough for optimisations, and doing optimising after the fact can be very inefficient. Live and learn, right? One really fun technical challenge was getting the split screen working correctly for four players on the PC. Also getting the Rhythm



» [PC] If you've ever played the earlier games you'll certainly recognise this.

Matching algorithms working right to score player rhythms. Those types of challenges are fun.

What aspect/mechanic of Back In The Groove are you most excited about?

That's a difficult question to answer. There isn't really any one feature or mechanic per se. The thing I am really most excited about I suppose is 'laughter'. The most enjoyable part about watching other people play is the laughter that happens from how they interact with each other and from all of the crazy surprises that happen. This game has so many different random elements in it that emergent surprises happen constantly. When these are triggered by one player and affect the other player, it makes for a lot of screaming and laughing. I am looking forward to hearing from players about what experiences they have with their friends. ★

> **"My team keeps asking me when I am going to design something simpler"**
>
> Greg Johnson

UPDATE ME DO

How are current crowdfunding projects faring?

SHENMUE III

Originally planned for: August 2017

Now planned for: August 2019

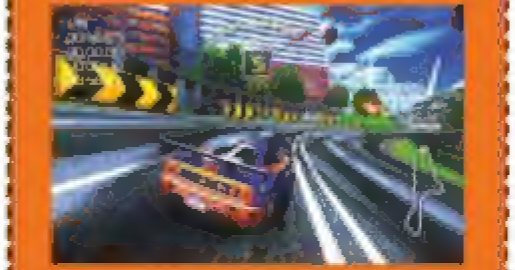
It was inevitable that a game as ambitious as *Shenmue III* was going to slip, so we're not really surprised that it's now scheduled to appear some two years after its original planned date. It's going to have a far bigger issue living up to the expectation set by fans.

BLOODSTAINED: RITUAL OF THE NIGHT

Originally planned for: March 2017

Now planned for: TBC 2019

It's still unclear when exactly in 2019 Koji Igarashi's game will be released The delay has meant that the Vita version has been cancelled in favour for the Switch, but we have had the impressive *Bloodstained: Curse Of The Moon* in the meantime. Here's hoping we get more concrete news soon.

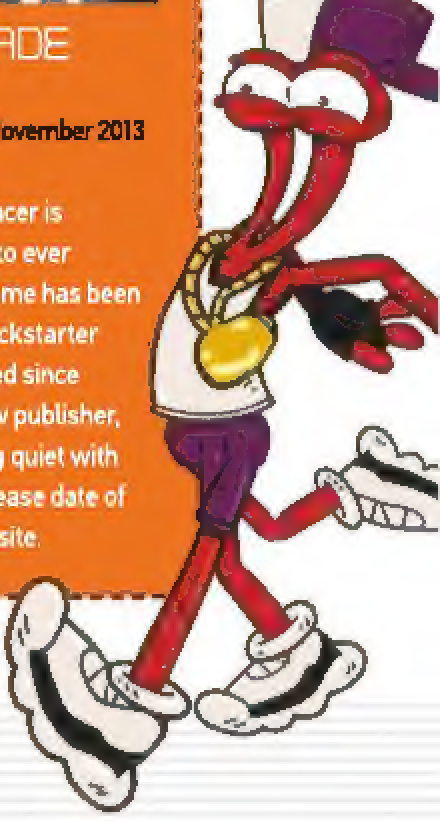


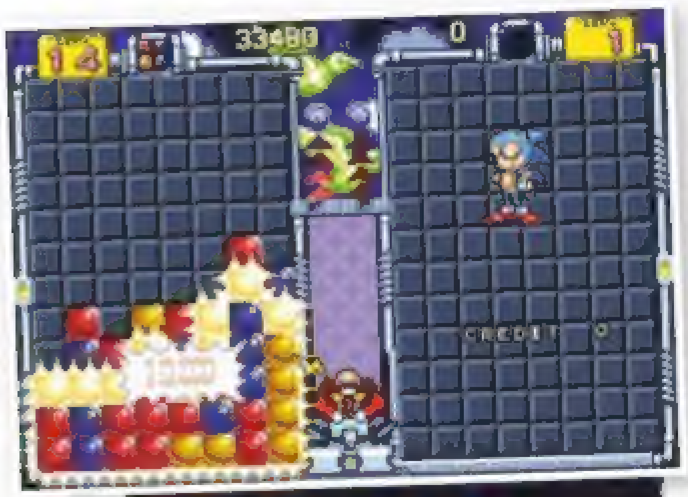
THE 90'S ARCADE RACER

Originally planned for: November 2013

Now planned for: TBC

This *Daytona*-inspired racer is perhaps the least likely to ever appear, and the Wii U game has been cancelled. Its original Kickstarter page hasn't been updated since November 2015 and new publisher, Nicalis is also remaining quiet with nothing more than a release date of 'soon' on its official website.





SONIC'S LOST SIBLINGS

SegaSonic Bros, a previously unreleased arcade puzzle game, has recently leaked online and been made playable using a special version of MAME. The 1992 game was apparently designed by Bubble Bobble creator Fukio Mitsuji according to a credits string found in the ROM files, and made it as far as location testing before being scrapped. Interestingly, an early version of Sonic The Hedgehog 3's special stage music appears late in the game, predating its official release by a couple of years. As the game ran on the Mega Drive-based System C2 board, a fan has already made considerable progress on getting it running on home hardware.

LEMMINGS GO MOBILE

The latest entry in the Lemmings series has arrived as a mobile game for iOS and Android. After an environmental catastrophe, the cute little critters have to search the stars for a new home. The game now features touchscreen controls and vertical screen orientation, and the concept of various Lemmings tribes returns. The developers have used procedural generation to create the stages (though they are apparently "carefully curated") and are boasting that the game has more levels than every previous game in the series combined – apparently numbering in the thousands. It's free to play, so try it out and tell us your thoughts.

SIGIL OF DESTRUCTION

WE SPEAK TO JOHN ROMERO ABOUT HIS NEW DOOM EXPANSION

Doom cocreator John Romero is returning to the classic with an expansion. Sigil will release midway through February this year, so we grabbed its creator for a chat ahead of its launch.

» The physical edition from Limited Run Games looks quite epic

How did the concept of Sigil come about?

After making E1M8b and E1M4b in 2016, I got a lot of requests to make more levels. I thought about the fact that Doom's 25th anniversary is coming up so that would be a great time to do an entire episode of levels, not just one or two new ones. So, I decided to create episode five and named it Sigil – a symbol of magical power, which is basically what pentagrams are supposed to be, and it's part of the story of how you got to episode five.

What has it been like returning to Doom after all this time?

After 2016's levels, it was even more fun getting back in the groove of level creation. My Sigil levels are better than my 2016 levels, so I believe that people will like them for sure.

How long has it taking you to create the 18 new levels?

I started on Sigil around March 2018 and made levels in my spare time. I got fast enough making levels that I created one in a single day. I didn't beat my six-hour record for E4M2, but finding the time to make levels around the other projects at my game company, Romero Games, was always a challenge.

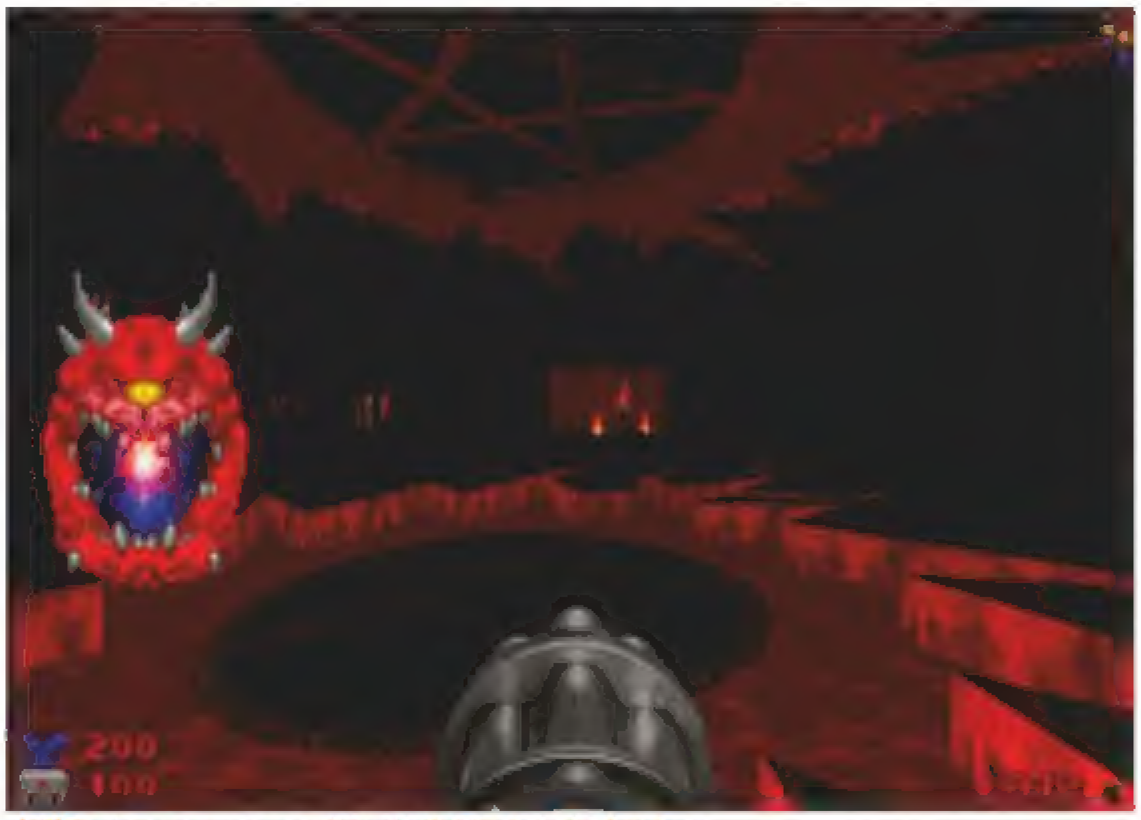
What programming knowledge have you applied since making the original Doom?

No programming knowledge was needed to make Sigil. But in general, in my career, I've been coding all my life. So, I've been programming games as much as possible. I just finished a small game for a giant customer, and I did a lot of programming on it. In 2017 Gunman Taco Truck was released and I have a lot of code in that game. I have always used the lessons that I have learned along the way to build my next game.

» [PC] This expansion is a freebie, so make sure to add it to your original copy of Doom!

Has anyone else been working on the project with you?

Well, Buckethead did a new song for it and it's nine minutes of incredible guitar. There are some other contributors coming in at the end to help make sure the quality and compatibility is there.



» [PC] Classic Doom enemies are still found in Sigil, like the hellish Cacodemon.

Tell us about the special edition with Limited Run Games.

They were totally into it, even though this is not like anything they've done before – a fan box for a free game mod. The exact kind of packaging I wanted was no problem for them, and they were excited to pack the box with lots of stuff fans will love – they're my kind of people! The box art sealed the deal. Chris Lovell is an incredible artist and I'm using two of his paintings for the two boxes.

Have you had to do a still-life pose for the limited edition version of your head on a pike?

No, they have several pictures of me to make the sculpture from. It will be a modern day version of me, the Icon Of Sin, with much longer hair. ★

BENDS YOUR REALITY

retroradar THE VAULT

THE COOL RETRO STUFF THAT WE'VE HAD OUR EYE ON THIS MONTH

My Arcade Dig Dug Micro Player

Everyone on **Retro Gamer** loves Dig Dug [love is a strong word – Ed], so we were happy to see this miniature cabinet make its way into the office. The dinky cabinet stands 6.75 inches tall and its side panels, marquee, bezel and control panel all feature artwork inspired by that of the original arcade cabinet. But what makes it very cool is the fact that it's fully playable.

The machine is powered by either four AA batteries or a Micro USB cable, and features a headphone jack so that we don't disturb everyone with the game's infectious walking music. Controls are a tiny stick (built onto a D-pad) with a button to pump up the enemies, plus start and reset buttons. The game itself is the NES version, but as we pointed out way back in issue 144's Ultimate Guide, it was amongst the best of the contemporary conversions. If you dig Namco's arcade classic like we all [steady – Ed] do, this makes for a pretty fun desk toy.

Price: £29.99 **From:** funstockretro.co.uk

PICK OF THE MONTH

The Nostalgia Nerd's Retro Tech

This popular YouTuber's book provides an introduction to just about every significant console and home computer format from the Magnavox Odyssey to the Xbox (although handhelds aren't covered). Each system gets four pages of coverage, featuring a brief history plus some nice photography and a selection of games to see, play and avoid.

Price: £15.00

From: waterstones.com

Pac-Man Pin Badge Set

Did you know that pin badges are ace? It's true! These ones bear the iconic pixel art of Pac-Man, and you get a set of nine – that's three pieces of fruit, Inky, Pinky, Blinky, Clyde and a panicked ghost, as well as Pac-Man himself. A cool little touch is that each ghost's eyes are pointing in a different direction. We appreciate those sorts of details.

Price: £19.99

From: amazon.co.uk

Game Boy Alarm Clock

We're quite fond of psychologically torturing people by setting their alarm to use the Sonic drowning music, or the Metal Gear Solid alert music. But if you'd prefer to wake up to something a little more pleasant, like the sounds of Super Mario Land, this alarm clock should do the trick. It's shaped and sized like the original Game Boy for maximum nostalgia.

Price: £24.99

From: menkind.co.uk

Toki: Retrollector Edition

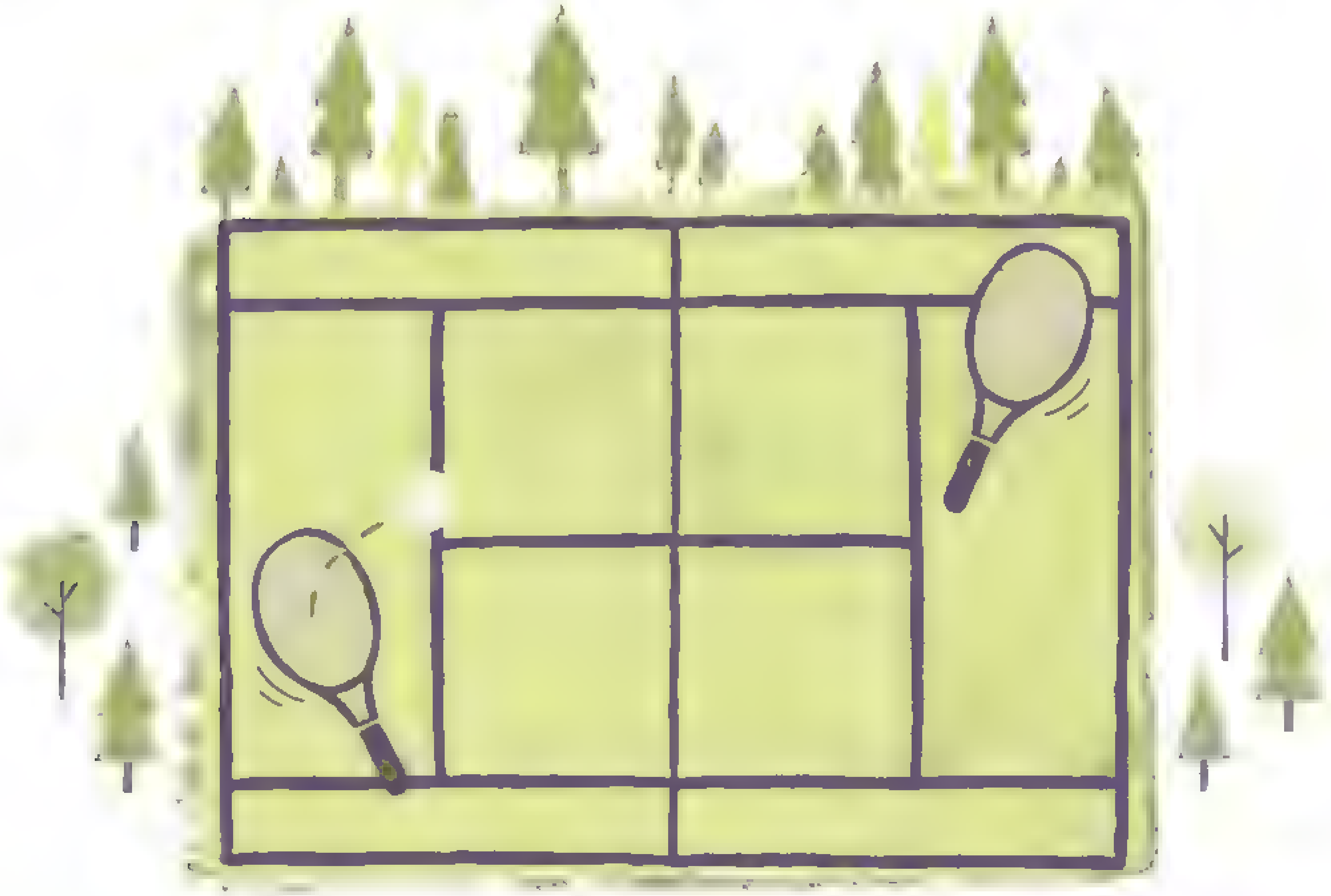
This arcade favourite recently had quite a nice Switch remake, and this special edition is packed with cool extras. As well as a physical copy of the game, you get a couple of nice art prints, a sticker sheet, a Toki comic book and a miniature Toki-themed arcade cabinet to build, which houses your Switch while you play the game for added authenticity.

Price: £44.99

From: game.co.uk

45 THOUSAND

TENNIS COURTS EVERY DAY!



Did you know that European forests, which provide wood for making paper and many other products, have been growing by over 45 thousand tennis courts every day!

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UNFAO, Global Forest Resources Assessment 2005-2015

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TWO SIDES

Who is Paul Rose?

Paul is probably better known as Mr Biffo – the creator of legendary teletext games magazine Digitiser. These days, he mostly writes his videogame ramblings over at Digitiser2000.com. If you want more Biffo in your eyes, you can catch him as the host of Digitizer The Show at www.bit.ly/biffo2000

Character study

Sometimes I wonder whether modern games are going to have the same sort of nostalgic shelf-life as those I grew up playing.

I love that the likes of Knight Lore, Donkey Kong and The Legend Of Zelda have endured. I love that there is going to be a Sonic The Hedgehog movie, despite Sega having not released a brilliant Sonic game (Sonic Mania aside) in 20-something years. I love that there is enough demand to have given rise to a thriving after-market for old consoles.

Is this still going to be the case in another 20 or 30 years? Are the kids of today going to be similarly nostalgic for their PlayStation 4s and Xbox Ones as we are about the ZX Spectrum or Dreamcast? Will they be making tribute Let's Plays to Just Cause 4 in the way you might get now with Skool Daze or Midwinter? See, something that has been lost for me is that sense of distinctiveness which old games and systems had.

With the exception of Nintendo's Switch (though even that is really little more than another black slab), none of the current generation of gaming hardware feels iconic in the way that the original PlayStation or Nintendo 64 did. That sense extends to the games, too.

First-person shooters have taken away any sort of identifiable character, while most modern, 3D, open-world games are all so photorealistic – lacking the distinct art direction of, I dunno, Jack The Nipper or The Sentinel – that they all blend into one. An issue compounded by the fact that most modern games characters look so similar to one another. Frankly, I wouldn't have been enormously surprised if they redesigned Lara Croft to resemble a middle-aged man with stubble, wearing a tight, long-sleeve, T-shirt, and some sort of superfluous harness.

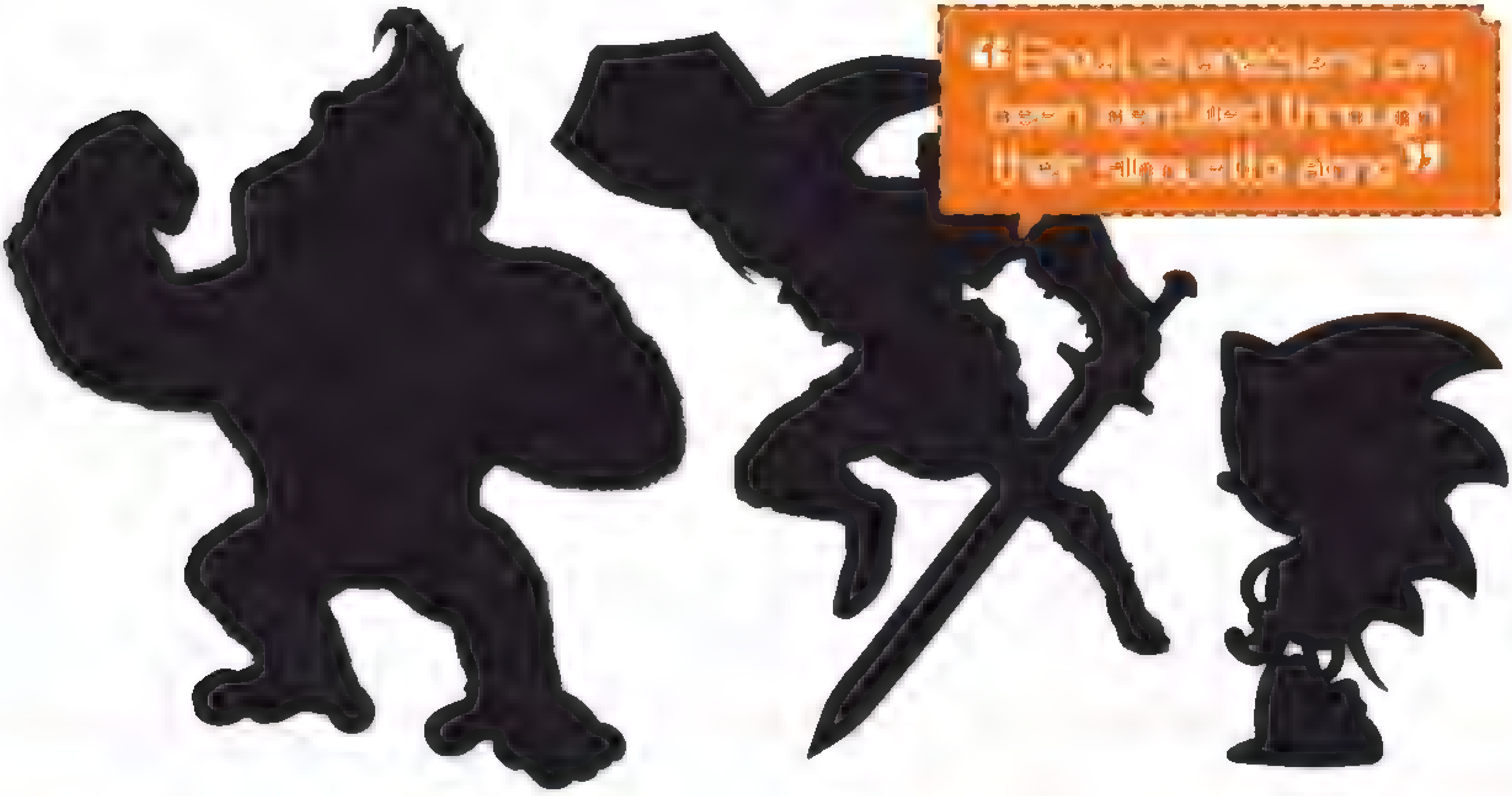
I could be wrong – I can't put myself into the heads of today's kids. I'm sure they'll remember the Fortnite dances and Minecraft Creepers for the rest of their lives, but games like those seem to be the exception now, rather than – as they were – the rule.

I think it was The Simpsons' creator Matt Groening who said that great characters can been identified through their silhouette alone. Think of Bart Simpson, a Dalek, Batman. Now think of how nondescript Nathan Drake, Dante and even Bayonetta are as silhouettes. They're all pressed out of one of two moulds, grizzled alpha male, or generic, spiky-hair, manga person.

The beauty of more primitive games systems is that they lent themselves to simpler shapes, which are immediately iconic in the eyes of who experienced them. How basic were Miner Willy or Horace? Consider the improbably angles of Crash Bandicoot. And yet here we are, decades later, and those characters are still instantly recognisable.

Of course, I realise that in saying this I'm very much risking coming across as the miserable git in his care home, bleating on about how everything was better back in my day, but this is coming – I believe – more from a graphic design perspective (which is what I was in a former life) rather than one that's viewed through rose-tinted goggles. Now if you'll excuse me, the nurse has just rung the lunch bell. Today I'm having medication! ★

> "Great characters can been identified through their silhouette alone"



Do you agree with Paul's thoughts? Contact us at:

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Sega Heroes

Demiurge Studios' Bart Simon on its love letter to Sega

If you're a fan of Sega you're probably well aware of Sega's fun match-three game Sega Heroes, which pays tribute to countless classic Sega characters. We spoke to Bart Simon to find out how it all came about.

Where did the concept for Sega Heroes originate?

In 2012 we released Marvel Puzzle Quest. Entering its sixth year, it continues to be both a wonderful success and an amazing learning experience. While we continue to invest heavily in MPQ, we were looking for an opportunity to build a new game. We joined the Sega group in 2015, which happily made our decision easy. Given access to their library of legendary characters, let's use all of our learnings to build a new game for a new audience.

Why make a match-three game?

We love match-three for a few reasons. First, it's familiar – we can start building on things players already understand. Second, it's a great tactile experience on a phone; an intuitive touch-based interface. Lastly, given all of our experience on MPQ we feel confident that you can realise fun tactical gameplay using match-three as an activity powering RPG gameplay.

What were the biggest challenges you've faced?

For this title, finding a universal art style was a fun challenge. The characters we feature are from many different eras and were invented by many different artists. Some were 16-bit 2D, others were high-poly 3D. In a few cases it was actually tricky finding good references! We like where we ended up – it's awesome seeing all of these characters look like they belong together.

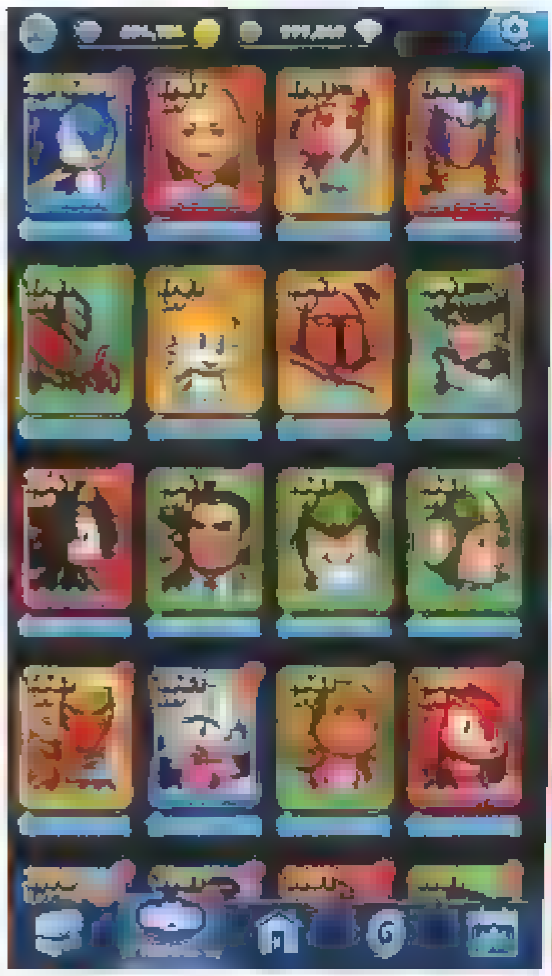
How hard is it to balance the free-to-play aspects?

Our approach is to focus on making sure players are having fun. When we're balancing, that gets the most weight. We don't lock players out of features or content and we listen very intently to players who don't spend [money] in-game.

We do give players opportunities to make in-game purchases and our goal with those offers is to give great value. If players don't feel like their money is well spent we haven't done a good job. So generally it is a balancing act, but it's all predicated on whether or not users are having fun and feel like the game is a good investment.

How did you go about choosing the unlockable characters?

The number of characters created by Sega developers over the last 30 years is staggering. I'm sure that at **Retro Gamer** you know this even better than we do! With our launch sets we've tried to pick famous characters that really capture the games' 'mash-up' appeal. We've got many more lined up – some that are familiar and a few that we hope will be awesome discoveries for new Sega fans.



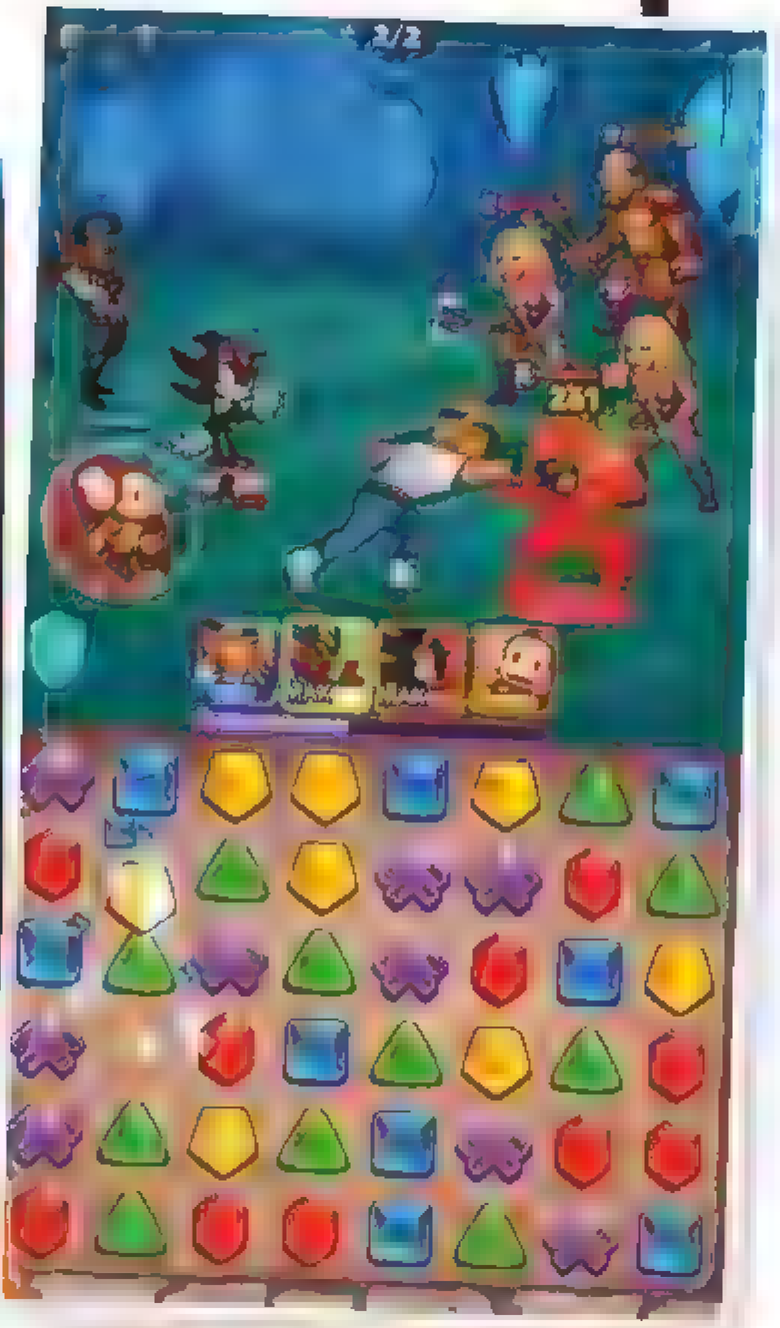
» [iOS] There are plenty of recognisable characters in Sega Heroes and more additions are planned.

What games would you like to add characters from in the future?

All of them! We would love to share who is at the top of the list, but that would ruin the surprise. One of our favourite stops is the game's Discord channel where fans lobby for their favourite characters.

Sega Heroes has quite a stylised aesthetic. Did you get any input from the original Sega character designers?

We got the opportunity to work directly with the originators of some of these IPs. That's been one of the most amazing parts of this experience for the development team here at Demiurge.



» [iOS] Match three gems and your characters will attack the opposing team.

How important is fan service to a game like Sega Heroes?

In a general sense, it's the most important thing. The game is a celebration of these iconic characters. Just like Marvel Puzzle Quest, we want players to look at our character designs and feel like, 'Cool, they really figured out what made that character so memorable.'

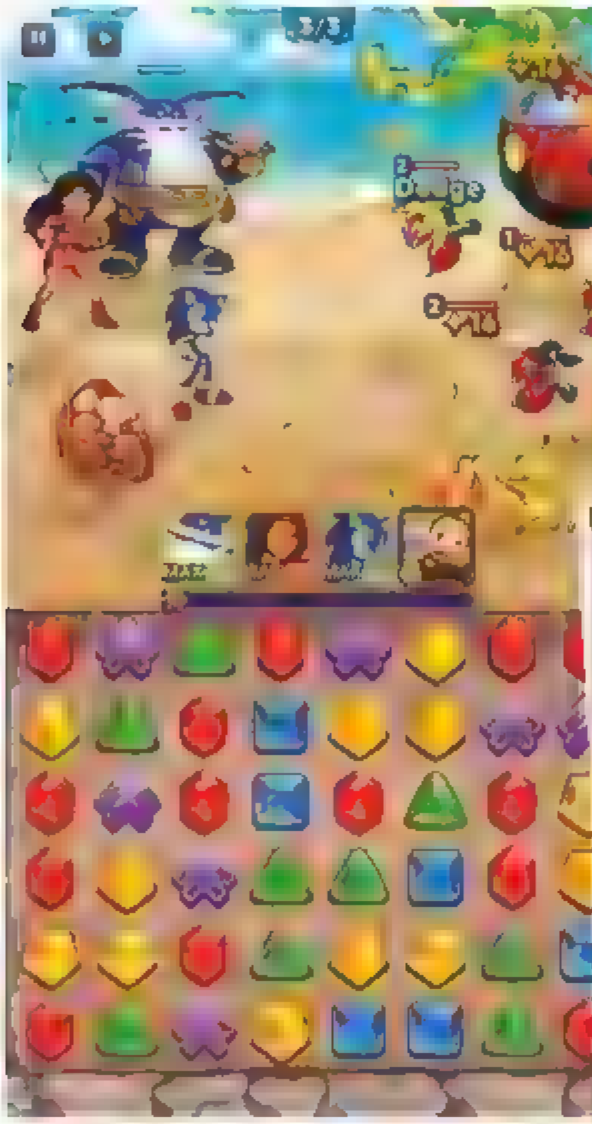
How often do you plan to add new content to the game?

We expect Sega Heroes to run for years! There will be new content, features and improvements every month – it's a living world.

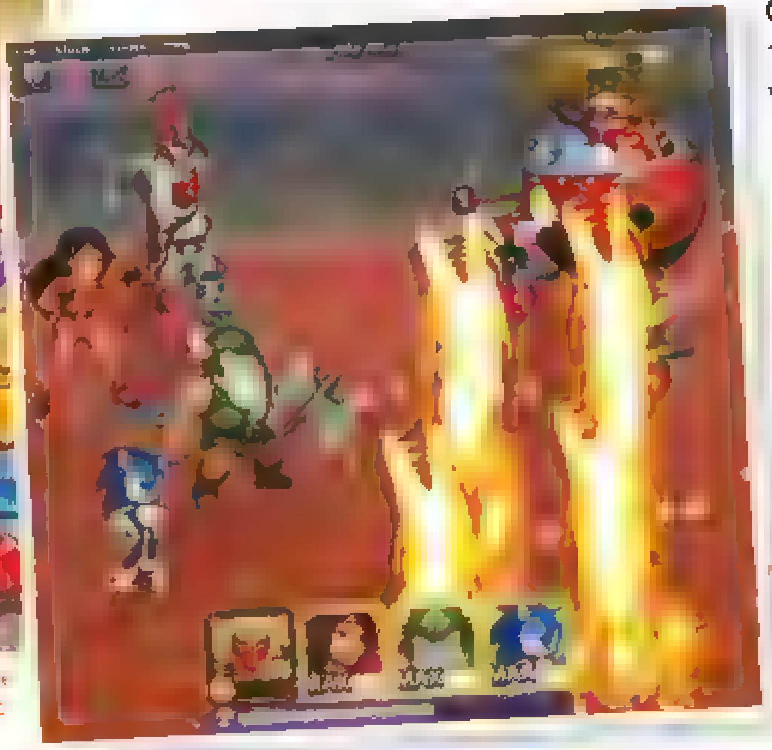
Why should readers download Sega Heroes today?

It's super fun to play and it features your most beloved Sega characters. It's growing and if you download today you'll be a part of shaping its future. Also you can't beat free – it's free. ★

Sega Heroes is available now on iOS and Android devices.



» [iOS] There are plenty of nods to classic Sega games; these flames will be instantly familiar to fans of Shinobi, for example.



BACK TO THE NOUGHTIES

FEBRUARY 2002 – As winter drags on and the Christmas rush has faded, what's left to cover? Not too much, as it happens – but excitement over new consoles is still building. Nick Thorpe hops into his time machine…

NEWS FEBRUARY 2002

On 3 February, Super Bowl XXXVI took place, with the New England Patriots beating the St Louis Rams 20-17 to clinch their first ever championship. The Rams had been heavily favoured to win as their 14-2 regular season beat the 11-5 posted by the Patriots, and no AFC East team had ever won a Super Bowl before.

The month's other major sporting event was the 2002 Winter Olympic Games, taking place in Salt Lake City, Utah. 78 countries participated in the event, which ended with Norway at the head of the medal table, taking away 13 gold, five silver and seven bronze medals. Germany placed second but took a record-breaking 36 medals, including 12 gold, 16 silver and eight bronze. The host nation was third in line with ten gold, 13 silver and 11 bronze.

Two notable figures from the entertainment business passed away in February 2002. Animator Chuck Jones died at the age of 89 on February 22. Jones had been responsible for many fan favourite cartoons in the Looney Tunes series, and created characters including Pepe Lé Pew and Wile E Coyote. Entertainer Spike Milligan passed on February 27. Having risen to fame as part of The Goon Show on BBC radio, he later worked in theatre plays, film and television, and wrote many books.

PlayStation 2
Cook those burgers

PS2 PaRappa's return was welcome, but it offered no challenge to anyone who already had the funky flow

THE LATEST NEWS FROM FEBRUARY 2002

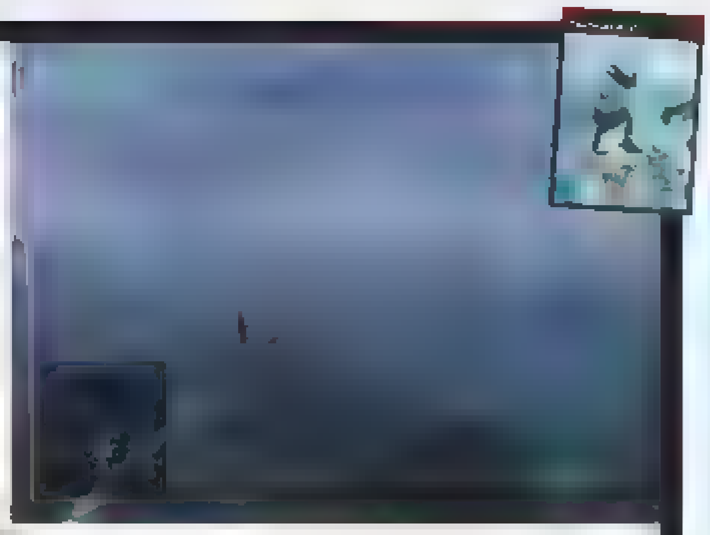
What's old was new again, as Super Mario Advance 2: Super Mario World became the latest adaptation of a SNES classic to reach the GBA. Reviews of the Japanese version were quick to filter through, despite the imminent UK release – and NGC fell in love all over again, awarding it 5/5. Although the magazine cautioned that "it is just a 2D platformer – to complete the game, just run to the right," it advised readers to, "Forget your Ocarina Of Times, your Mario 64s and your Perfect Darks – this 6x4cm slab of ten-year-old gaming makes a mockery of them all." Edge was concerned that the game "may just be too familiar to most gamers", but still felt that "NCL's most polished 2D platformer only generates a craving for a form which has become deeply unfashionable," and awarded it 8/10. The month's other GBA retro resurrection wasn't quite as well received, with NGC awarding just 2/5 to International Karate Advanced. The handheld game was dismissed as "painfully slow" and "embarrassingly old-fashioned."

The typical post-Christmas lull hit most formats hard, though, with the most exciting PS2 games of the month both being sequels. Namco's aerial dogfight simulator Ace Combat: Distant Thunder was awarded 87% by Play, which praised it as "an enjoyable, if occasionally frustrating challenge" and "a little bit special." Official PlayStation 2 Magazine's Mark Walbank wasn't quite as impressed. He awarded it 7/10, warning that "if you expect a little intricacy and depth in your flight combat games, you may well feel a little short changed by the lack of variety and depth on offer." Also making its debut this month was PaRappa The Rapper 2. In Play, reviewer Mark Crawley praised the game as "still instantly appealing", but noted that it was "no evolution of the genre" and awarded it 80%. Ste Curran awarded the game 7/10 in Official PlayStation 2 Magazine, noting that it's "much, much easier than its predecessors" and "barely rewards those who endeavour to complete the game multiple times."

However, the best new game of the month was EA's Medal Of Honor Allied Assault, a rather excellent debut PC entry in the Second World War

Could Xbox succeed in Japan? 20,000 launch consoles sold was a promising start, but only time would tell

[PC] War is bleak, brutal and miserable. Medal Of Honor: Allied Assault was anything but.



[PS2] The latest entry in the Ace Combat series was a decent effort, if a little light for simulation fans.

[GBA] It's unsurprising that the game our readers voted as the best of all time still held up on GBA.

first-person shooter series. Critical acclaim included a 94% score from PC Zone and 95% from PC Gamer. In the latter review, Steve Brown marvelled at the way the game "shocks without any blood" and praised the developers for "hiding a linear game in a seemingly massive world" as well as "taking computer AI to a new level of humanity."

New hardware was still a topic on the minds of many, as the Xbox made its debut in Japan this month, but analysts quoted by the Taipei Times saw little prospect for Microsoft to make a success of its new console in the region. "It seems there is almost no chance of Xbox becoming a major player in Japan," said Junji Nakauchi of Marusan Securities. Takeshi Tajima of BNP Paribas asserted that "The price tag for Xbox is too expensive, it's pricing itself out of the market, also it does not have enough title games." Sony's Japanese spokesperson commented, "We are not worried," and their Nintendo counterpart concluded that, "It won't be a problem." The machine launched at 34,800 and sold 120,000 units in its debut weekend – an impressive number, but lower than those achieved by the GameCube and PS2. Meanwhile, preparations were being made for the system's European launch next month.

Still, if Japan wasn't causing Microsoft misery in sales terms, it certainly was in terms of software. The most notable Xbox release of the month was Kabuki Warriors, a fighting game based around Japanese theatre. Unfortunately, it was notable for all the wrong reasons. "Poorly textured characters waltz to a simplistic system," complained Edge's review, which also called out the "weak, pointless 16-bit eye candy" and a "story-less Story mode". The game became the first to ever receive Edge's lowest possible score of 1/10, with the reviewer concluding, "This isn't kabuki. It's Yie Ar Kung Fu with blusher." It was an astonishingly poor effort from Lightweight, a developer which had delivered the rather excellent Bushido Blade just a few years earlier.

Also on the new hardware front, controversy reigned over when the GameCube would actually see its European launch. Nintendo had thrown out a vague window of "spring", which could mean that it might arrive as late as May. However, that didn't stop persistent rumours that the system would be delayed until far later in the year – as far back as September or even later. NGC reported that online rumourmongers had been suggesting that Nintendo had pulled stock intended for the European launch in order to provide more hardware for the Japanese market, but that Nintendo had denied this and claimed that the extra stock simply came from increased production. In other Nintendo news, NOA president Minoru Arakawa stepped down after 22 years in the role, to be succeeded by former Pokémon USA president Tatsumi Kimishima.

Join us again next month for Xbox madness – and maybe, just maybe, some idea of when the GameCube might show up on these shores. ★

CHARTS

FEBRUARY 2002

PC

1. Harry Potter & The Philosopher's Stone (EA)
2. The Sims: Hot Date (EA)
3. Return To Castle Wolfenstein (Activision)
4. Championship Manager: Season 01/02 (Eidos)
5. The Sims (EA)

PLAYSTATION 2

1. Grand Theft Auto III (Take 2)
2. Tony Hawk's Pro Skater 3 (Activision)
3. James Bond: Agent Under Fire (EA)
4. Pro Evolution Soccer (Konami)
5. WWF Smackdown! Just Bring It (THQ)

MUSIC

1. Hero (Enrique Iglesias)
2. You (S Club 7)
3. Point Of View (DB Boulevard)
4. What About Us (Brandy)
5. Get The Party Started (Pink)

FILM

1. Monsters Inc
2. Ocean's Eleven
3. A.I.
4. Gosford Park
5. The Lord Of The Rings: The Fellowship Of The Ring

THIS MONTH IN...

Play

We're expecting eccentricity when we see a letter about the PS3's release date, but reader Omar appears shockingly well-informed. "Sony is teaming up with two other companies (Toshiba and IBM), together they are going to develop a chip called 'The Cell'," he says. "The Japanese release of this next-gen system could be in 2006." Blimey.

PC Gamer

"The retro-fanboy army with its 16-bit 'pure gameplay' banners acts as if this ghostly essence of enjoyment can be pulled away from the skeleton it hangs on – the graphics themselves. Balls," says Jim Rossignol. "It's all about graphics. It's always been about graphics." PC Gamer's 2018 GOTY, Into The Breach, counters his point.

XBM

The magazine offers 50 reasons to buy Microsoft's console when it arrives in March. It should have gone with fewer to avoid including points such as controller leads ("The semi-transparent green snake is much longer than any other controller's") and world domination ("Perhaps the next James Bond villain will have one tucked under his arm").

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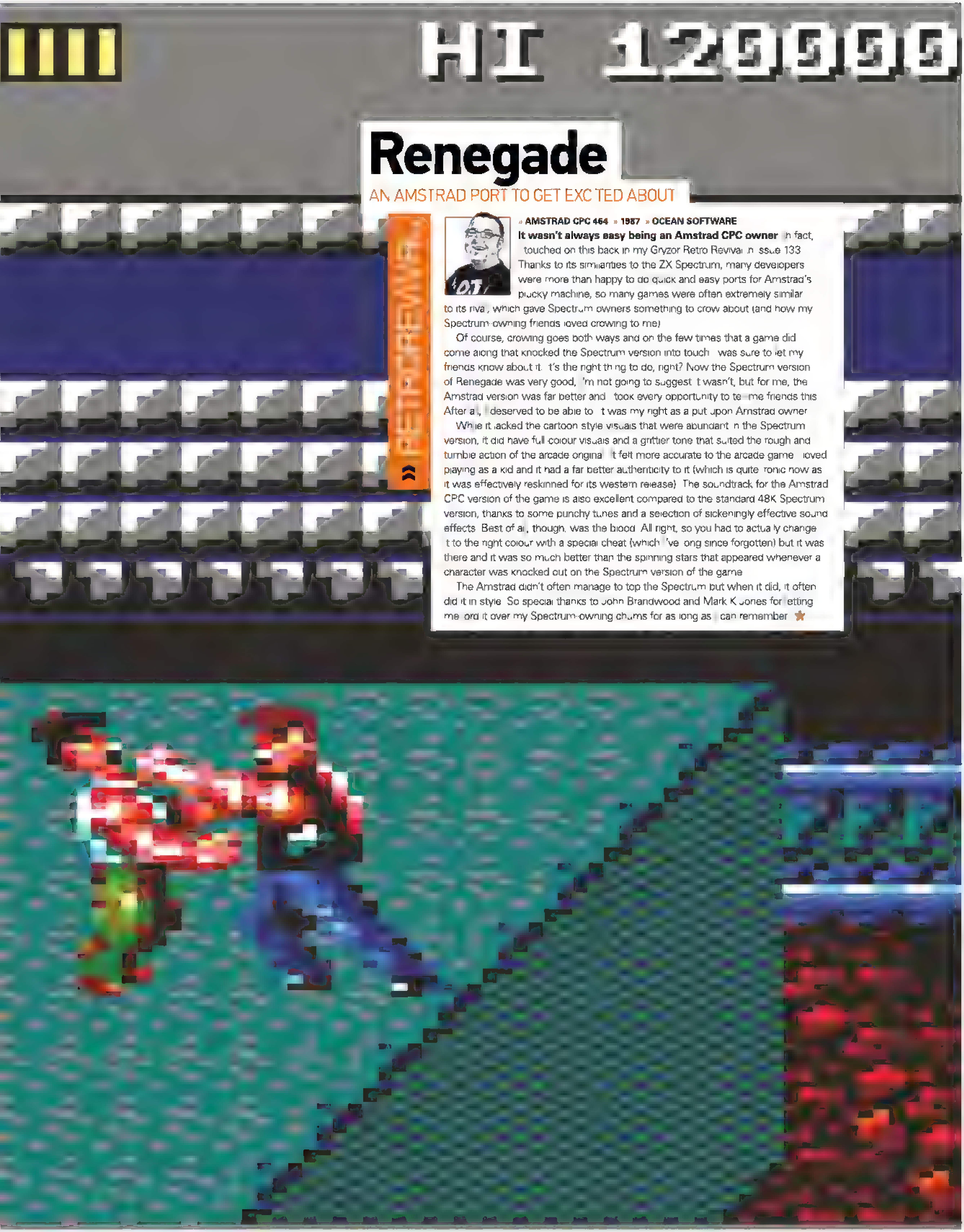


Renegade

AN AMSTRAD PORT TO GET EXCITED ABOUT

» AMSTRAD CPC 464 » 1987 » OCEAN SOFTWARE

It wasn't always easy being an Amstrad CPC owner. In fact, I touched on this back in my Gryzor Retro Revival in issue 133. Thanks to its similarities to the ZX Spectrum, many developers were more than happy to do quick and easy ports for Amstrad's plucky machine, so many games were often extremely similar to its rival, which gave Spectrum owners something to crow about (and how my Spectrum-owning friends loved crowing to me).

Of course, crowing goes both ways and on the few times that a game did come along that knocked the Spectrum version into touch I was sure to let my friends know about it. It's the right thing to do, right? Now the Spectrum version of Renegade was very good, I'm not going to suggest it wasn't, but for me, the Amstrad version was far better and I took every opportunity to tell me friends this. After all, I deserved to be able to. It was my right as a put upon Amstrad owner.

While it lacked the cartoon style visuals that were abundant in the Spectrum version, it did have full-colour visuals and a grittier tone that suited the rough and tumble action of the arcade original. It felt more accurate to the arcade game I loved playing as a kid and it had a far better authenticity to it (which is quite ironic now as it was effectively reskinned for its western release). The soundtrack for the Amstrad CPC version of the game is also excellent compared to the standard 48K Spectrum version, thanks to some punchy tunes and a selection of sickeningly effective sound effects. Best of all, though, was the blood. All right, so you had to actually change it to the right colour with a special cheat (which I've long since forgotten) but it was there and it was so much better than the spinning stars that appeared whenever a character was knocked out on the Spectrum version of the game.

The Amstrad didn't often manage to top the Spectrum but when it did, it often did it in style. So special thanks to John Brandwood and Mark K Jones for letting me lord it over my Spectrum-owning chums for as long as I can remember. ★

RESI-RECTING RESIDENT

EVIL 2

RESIDENT EVIL MIGHT HAVE POPULARISED SURVIVAL HORROR, BUT CAPCOM'S BLOOD-SOAKED SEQUEL TOOK THE STYLE TO NEW HEIGHTS. WE PERFORM A POST-MORTEM EXAMINATION ON THE GAME WITH THE MAN RESURRECTING IT FOR A NEW GENERATION, YOSHIAKI HIRABAYASHI

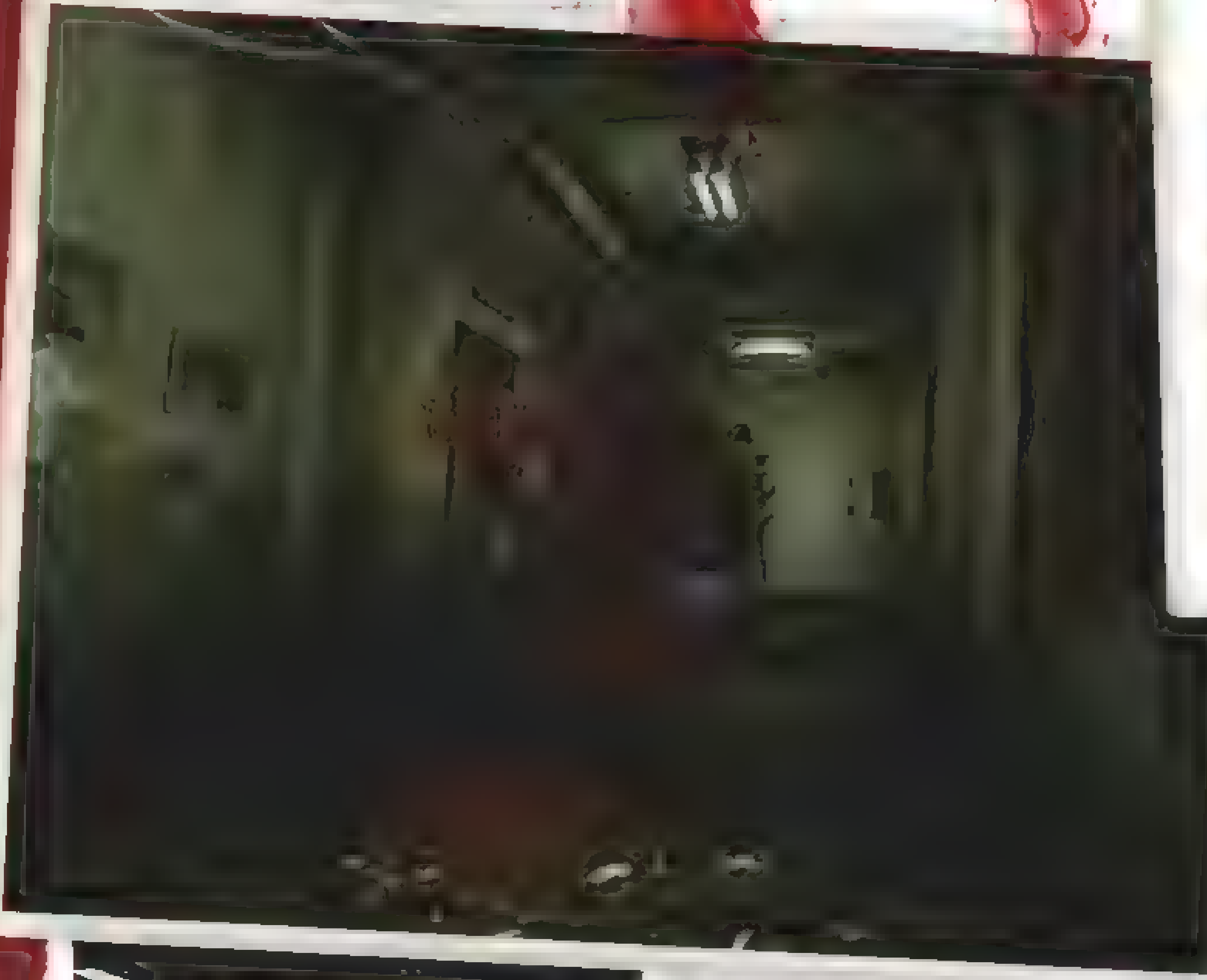
Words by Nick Thorpe

Sometimes, it's easy for players to fall into the trap of thinking that sequels are easy games to make – and that's far from the truth. If your game is successful enough to warrant a follow-up, you have to identify exactly why that happened in the first place, then keep that magic while delivering enough new content and improvements to justify the spend to prospective players. And while many were successful in that regard, there are plenty of sequels that have disappointed players and faded into obscurity – for every Tomb Raider II there's a Heart Of The Alien, and for every F-Zero X there's a Sparkster.

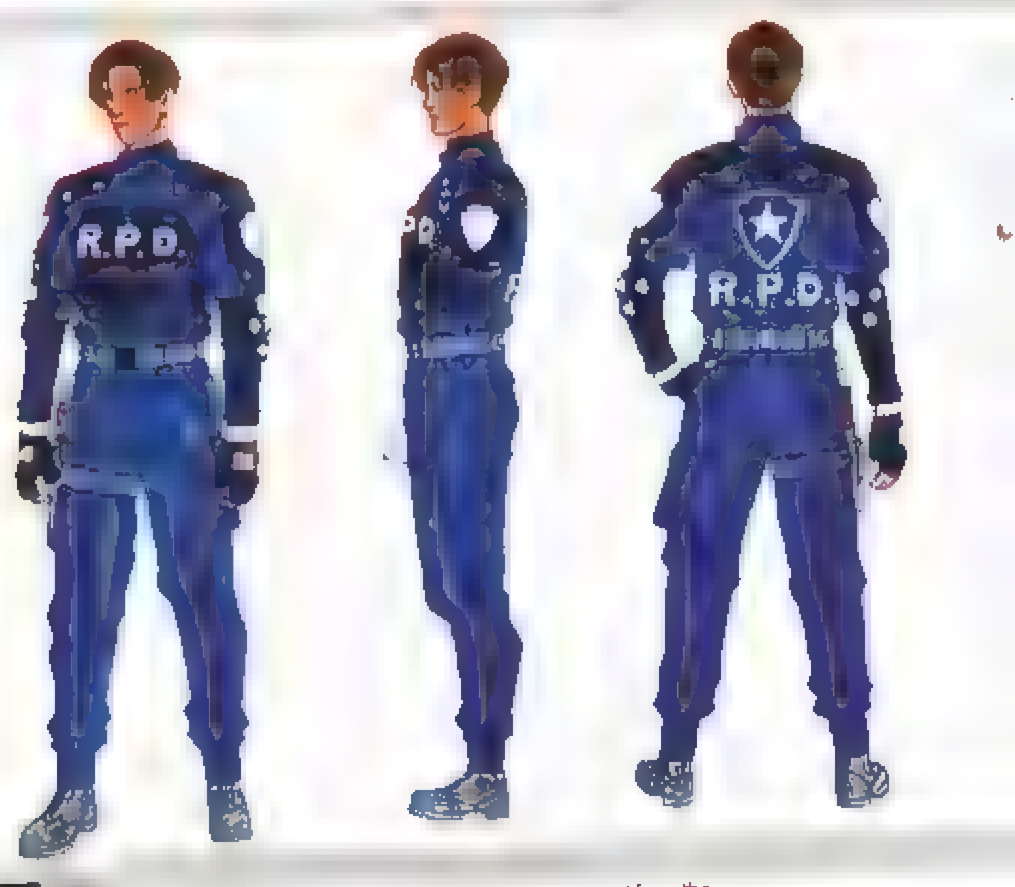
Resident Evil 2 is a fine example of just how hard it can be to develop a sequel. Today, the game is considered to be one of the best games not just in its series, or even just on its host platforms, but of all time it's one of the most beloved entries in a series with over two decades of heritage, so popular that it has received a remake with the resources of a wholly new production behind it. Yet it could have been so different, because almost a year into its development Resident Evil 2 was a project in crisis. Hideki Kamiya, a promising developer had been chosen to lead the development of Resident Evil 2 in his first directorial role. Shinji Mikami, the director of the first game, oversaw the game as a producer. Reportedly, the two developers clashed over the creative direction, and Mikami eventually took a hands-off approach, only requesting monthly updates on the game's progress. But with months to go until release, it became clear that the game that was being developed just wasn't a worthy successor.

Development was started over from scratch, with Resident Evil: Director's Cut put into production as an apology to the fans. Noboru Sugimura, a scriptwriter with many years of experience on TV shows, was drafted in by Capcom's development supervisor Yoshiki Okamoto to fix problems with the game's plot. Though it already featured many of the concepts that would ultimately make it to the final game, the existing story was unpolished and lacked a strong sense of connection to the world of the first game. While the concepts were retained, just about every asset was redeveloped from scratch – the backgrounds, character models and enemies.

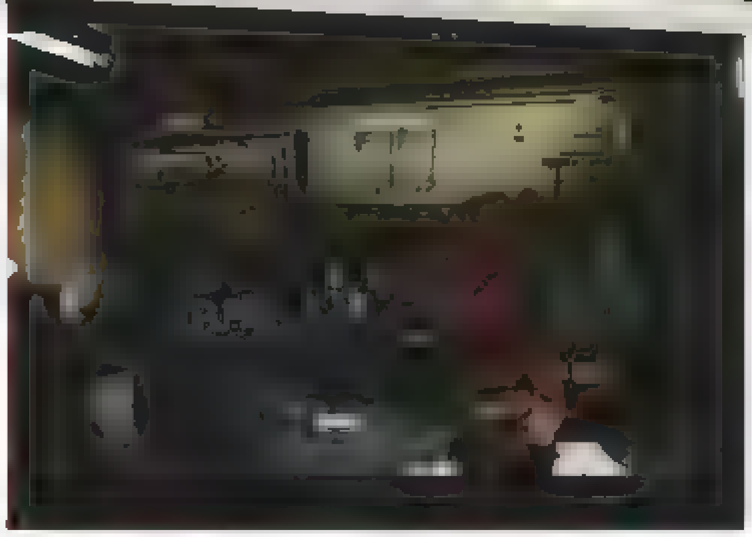
Following the events of the first game, where players had to survive a zombie outbreak in a secluded mansion, the sequel moved events to neighbouring Raccoon City – a mid-sized town of about 100,000 people. The story begins with



» [PlayStation] The Licker is one of Resident Evil 2's most disgusting creations, and tougher than a two dollar steak.



» Unlike Claire, Leon's design remained mainly unchanged from the concept phase through to the final version.



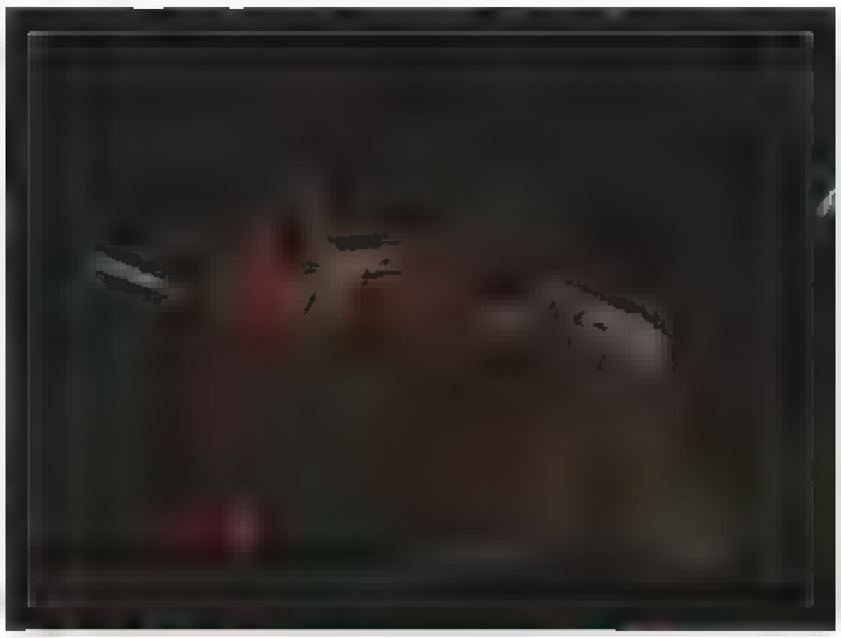
» [PlayStation] Leon and Claire are reunited in the STARS office, where Claire discovers that her brother has already left town.

▶ scientist William Birkin, a researcher working for Umbrella Corporation, the villainous pharmaceutical company and bioweapon research organisation behind the original game's events. William is working on the G Virus, which is capable of turning humans into incredibly powerful and monstrous mutants. Fearing betrayal, he's planning to defect to another company. Having got wind of this double-cross, Umbrella sends agents to confront Birkin and retrieve both the G Virus and samples of the T Virus that was responsible for the first game's outbreak. After being shot, Birkin infects himself with the final remaining sample, mutating himself into a monstrous creature bent on vengeance, then chases down and kills the Umbrella agents. In doing so, the briefcase containing the T Virus is destroyed, leading to the infection of some nearby rats. Within days, the town's drinking water supply is contaminated and most of the population is undead.

As the director of the Resident Evil 2 remake, Capcom's Yoshiaki Hirabayashi has to know the original version inside out, and therefore possesses a keen insight into what makes the sequel so special, including its setting. "When the game was originally released I had yet to join Capcom – I was still a university student, and enjoyed it simply as a player. Resident Evil 2 was actually my first Resident Evil game, so at the time I didn't have any reference point of the original game being set in a mansion compared to Resident Evil 2's city," explains the Resident Evil veteran. However, his first work in the series was on the remake of the original game, so he's well-placed to explain how the games contrast with one another. "When I subsequently played Resident Evil, I thought the different settings brought out different strengths in each game – the atmosphere and claustrophobic single location of Resident Evil, and the larger scale drama and entertainment of RE2," he continues.

It's easy to see his point, as Resident Evil was fairly sedate after its action-packed introductory FMV. The designers gradually ramped up the tension by introducing a missing team member, blood and then the first zombie – a shocking moment that doesn't come until a few screens into the game. Resident Evil 2's introduction was also explosive – quite literally, as the two protagonists are separated by a blast caused by a zombified truck driver. But once the game begins, they're dropped straight into the streets of Raccoon City and surrounded by the flesh-munching undead. "I think that Resident Evil used its setting of being trapped in a single location to build up tension as the nature of the situation was revealed gradually," says Hirabayashi. "But when it came time to make the sequel, that was an established part of the story and it was probably seen as more effective to immediately message to the player just how much bigger in scale the situation is." Moving the action to Raccoon City allowed the developers to instantly convey the difference between the first game's relatively contained zombie outbreak and the complete catastrophe of the sequel.

Of course, while the city streets are a great place to convey the scale of the outbreak, they lend themselves much more effectively to action than they do to the puzzles that were also an integral part of the first game. Additionally, the original game's mansion was such an iconic location that regular city streets just wouldn't match up. Luckily, Resident Evil 2 has the Raccoon Police Department. Although you'll progress into the sewers and an underground laboratory before the game's end, it's this signature location that you'll spend most of your time in. Your modern cop shop might not sound like the scariest place (your own criminality or the local police corruption aside), nor like a natural place for obscure puzzles, but it works within the context of the game. "As some fans may know, the RPD building featured in the game is supposed to have been a former museum," Hirabayashi explains, before addressing the unusual puzzles. "We are still making a game here, so there will of course be some devices and so forth that you wouldn't see in real life, but don't you think that mixture of realistic elements and game-like elements is one of the great things



» [PlayStation] This is your first encounter with the big, bad William Birkin – the game's primary antagonist.

"A POLICE STATION IS A GOOD CONTRAST WITH THE DANGER OF THE SITUATION THE CHARACTERS FIND THEMSELVES IN"

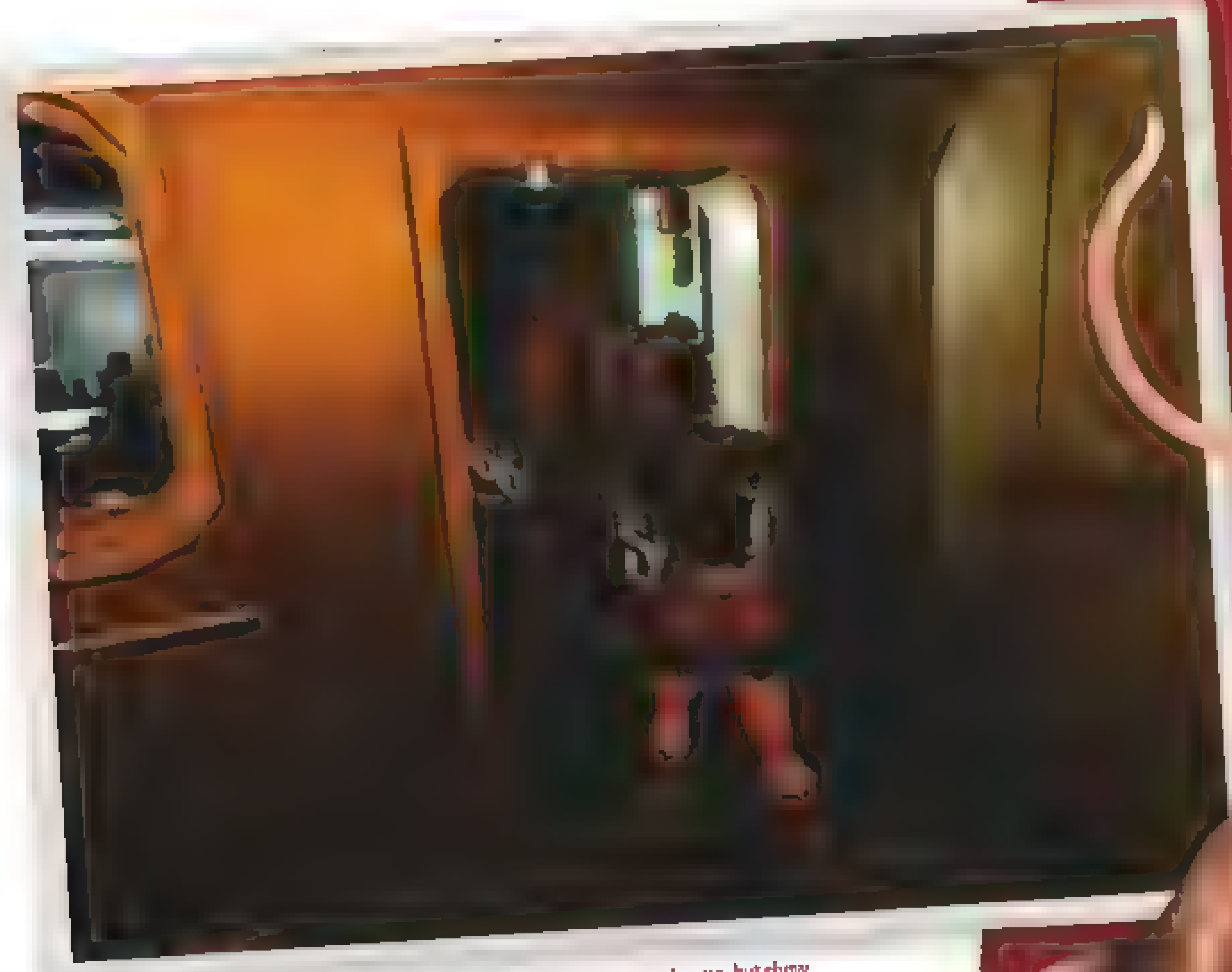
Yoshiaki Hirabayashi

about Resident Evil?" Absolutely. But it turns out there was one oddity that Hirabayashi couldn't get past. "I have always thought it was strange that the police station didn't have any toilets!"

This story helps to make a unique gaming location, albeit one lacking in certain convenient facilities. By choosing to deliberately fashion the RPD after something other than a modern police station, the background artists were able to create a location that serves a number of purposes. It can believably be seen as a police HQ, but could conceivably house oddities that wouldn't be found in a purpose-built station. Its Gothic architecture is simultaneously striking and intimidating even before you realise that it's also crawling with the living dead. And as Hirabayashi notes, the very idea of a zombie outbreak in a police station is psychologically jarring. "I can't speak to the original development process – please don't think I speak on behalf of the original developers! – but my opinion is that a police station is a good contrast with the danger of the situation the characters find themselves in," says Hirabayashi. "It should be a safe place, so finding it to be such a dangerous place is a very interesting motif."

It's also worth noting that Resident Evil 2's backgrounds were a significant step forward from those of the original game. As before, these ▶

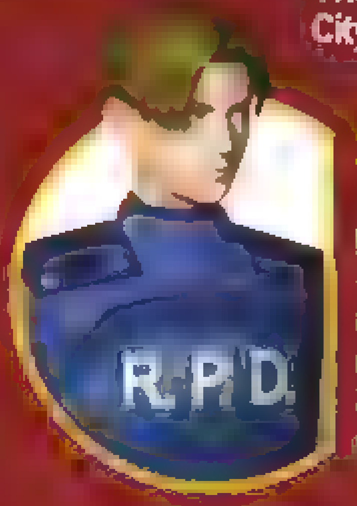
» Yoshiaki Hirabayashi has been associated with the Resident Evil series since 2002



» [PlayStation] Zombie scientists are more associated with the original game, but show up in the underground laboratory late on.

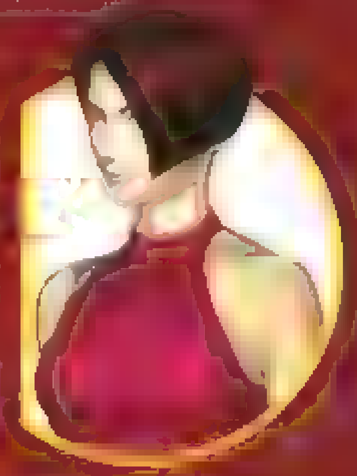
THE LAST SURVIVORS

These people need to get out of Raccoon City alive – and it's your job to help them



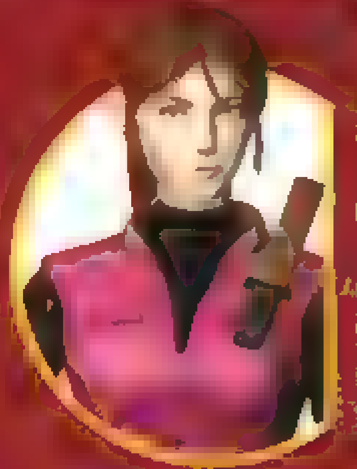
LEON S KENNEDY

■ Leon arrives in Raccoon City to find complete chaos, rather than the welcome party for his first day of work at the Raccoon Police Department. He'd chosen that department because of the mysterious murders in the nearby Arklay Mountains, so he was going to meet zombies anyway. In case you were curious, his middle name is Scott.



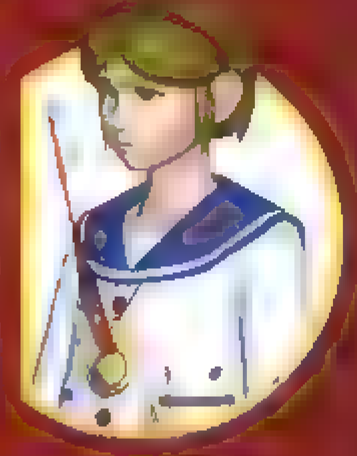
ADA WONG

■ When we first meet Ada, she claims to be looking for her boyfriend John, an Umbrella researcher. However, she's not who she claims to be, and the only thing we know for sure is that she's a spy who is attempting to obtain a sample of the G-Virus. She mostly assists Leon throughout his story.



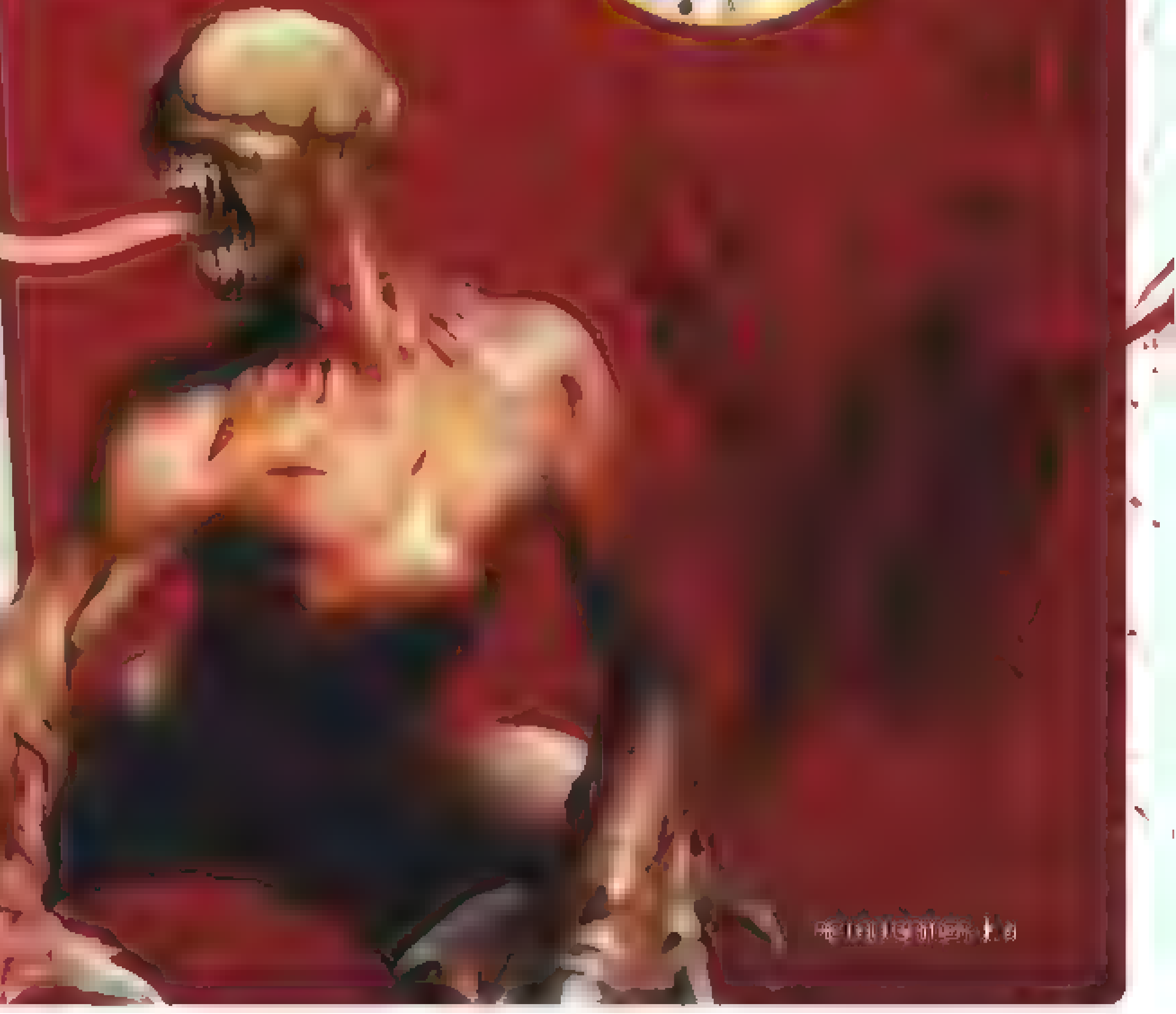
CLAIRE REDFIELD

■ The other main playable protagonist, Claire is a student and motorbike enthusiast who comes to Raccoon City in search of her brother Chris after losing contact with him following the events of the first game. Her survival skills, including armed and unarmed combat training, were passed on to her by her older sibling.

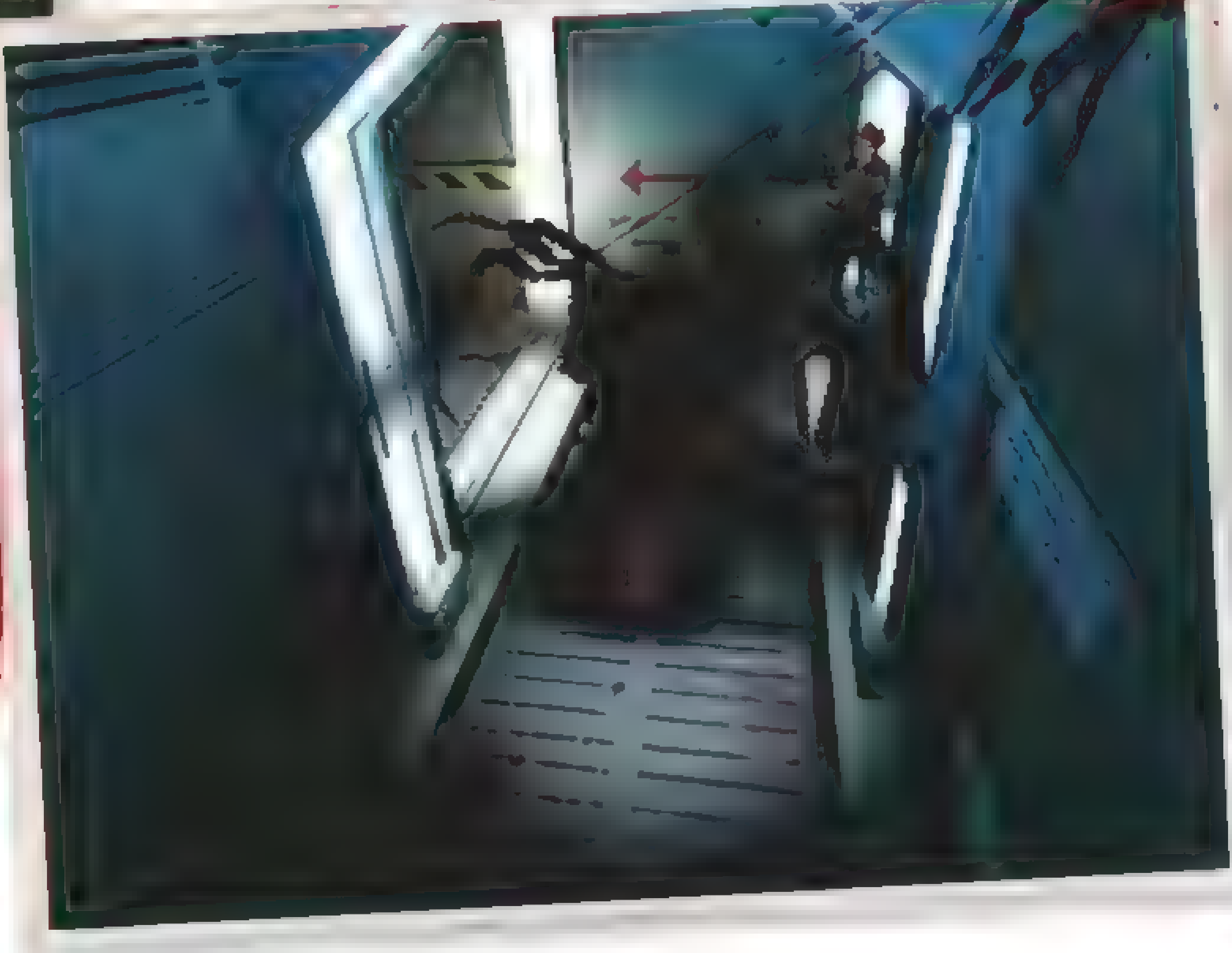


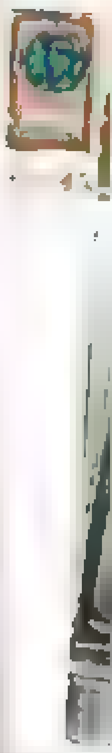
SHERRY BIRKIN

■ Sherry is the somewhat neglected daughter of Umbrella researchers William and Annette Birkin, and Claire's companion. Being a child, she's survived thus far by crawling into small areas. Over the course of the game, she receives the parental attention she craved – in the worst way imaginable.



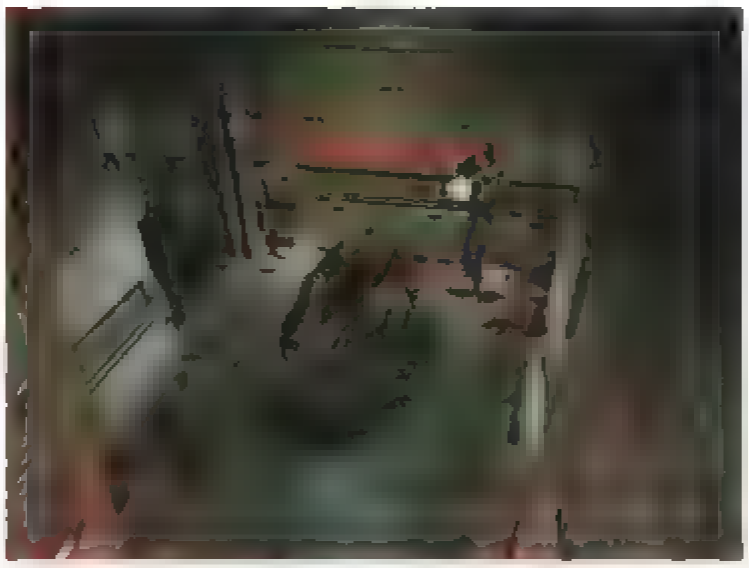
» [PlayStation] The prototype version of Resident Evil 2 may look familiar, but it features a lot of cut content such as this spider-like mutant enemy





were prerendered to provide the maximum possible visual quality, but this time the scene complexity was far greater – evident from the very first scenes, where the streets are strewn with crashed cars and broken glass, alleyways are piled with rubbish and covered in graffiti, and remnants of military blockade operations are visible. Throughout the game there's more detail in every scene, compared to the wallpaper and indoor decorations of the original mansion. The game also incorporated CGI sequences for FMV throughout the game, ditching the live action elements of the original.

But it wasn't just the prerendered visuals that got a major upgrade. Character models received an increased polygon count, and the new enemy designs are amongst the most iconic to be seen in the series. One of the most terrifying is the Licker – a blind, skittering nightmare with an exposed brain and visible musculature, with a signature long tongue that is used to attack players. What is it that makes them so memorable? "Zombies are, visually speaking, an extension of normal humans, but the Lickers takes the internals of the human body, which we all know we have inside us but rarely, if ever, see for ourselves, and [it] lays them bare in a way that's a great, shocking contrast with the more human-looking zombies," says Hirabayashi. "Its ability to climb over walls and ceilings fluidly also contrasts well with the zombies." Indeed, the creature's intro is one of the most memorable moments of the game – as you wander through a corridor in the police station, you can see something darting in the distance. You round a corner and see blood dripping from the ceiling, before a cutscene plays and shows you the Licker in full, gruesome detail.



» [PlayStation] Just as before, it's not just zombies that need fighting – this weird plant creature is a pain, too

Resident Evil 2 provided plenty more memorable encounters, from the sewer fight with a gigantic alligator to the secret encounter with the zombified STARS helicopter pilot Brad Vickers. But two more in particular stand out as highlights. The original Resident Evil concluded with a fight against the incredibly resilient Tyrant, and the enormous humanoid creature returns in the sequel – this time pursuing the player as they make their way through the game's B scenario, often appearing by surprise. This was so good that Resident Evil 3 was built wholly around the concept of being hunted by a single relentless pursuer. Then there's William Birkin, whose mutations become progressively more severe throughout the game due to the influence of the G Virus. At first, his main distinguishing features are his oversized right arm and a gigantic eyeball that has developed within it, but he soon starts to lose the vestiges of his humanity – his face and hair slip from his skull, he grows additional arms and eventually develops a bestial appearance, before ending up as little more than a shapeless mass

TEST SUBJECT 1

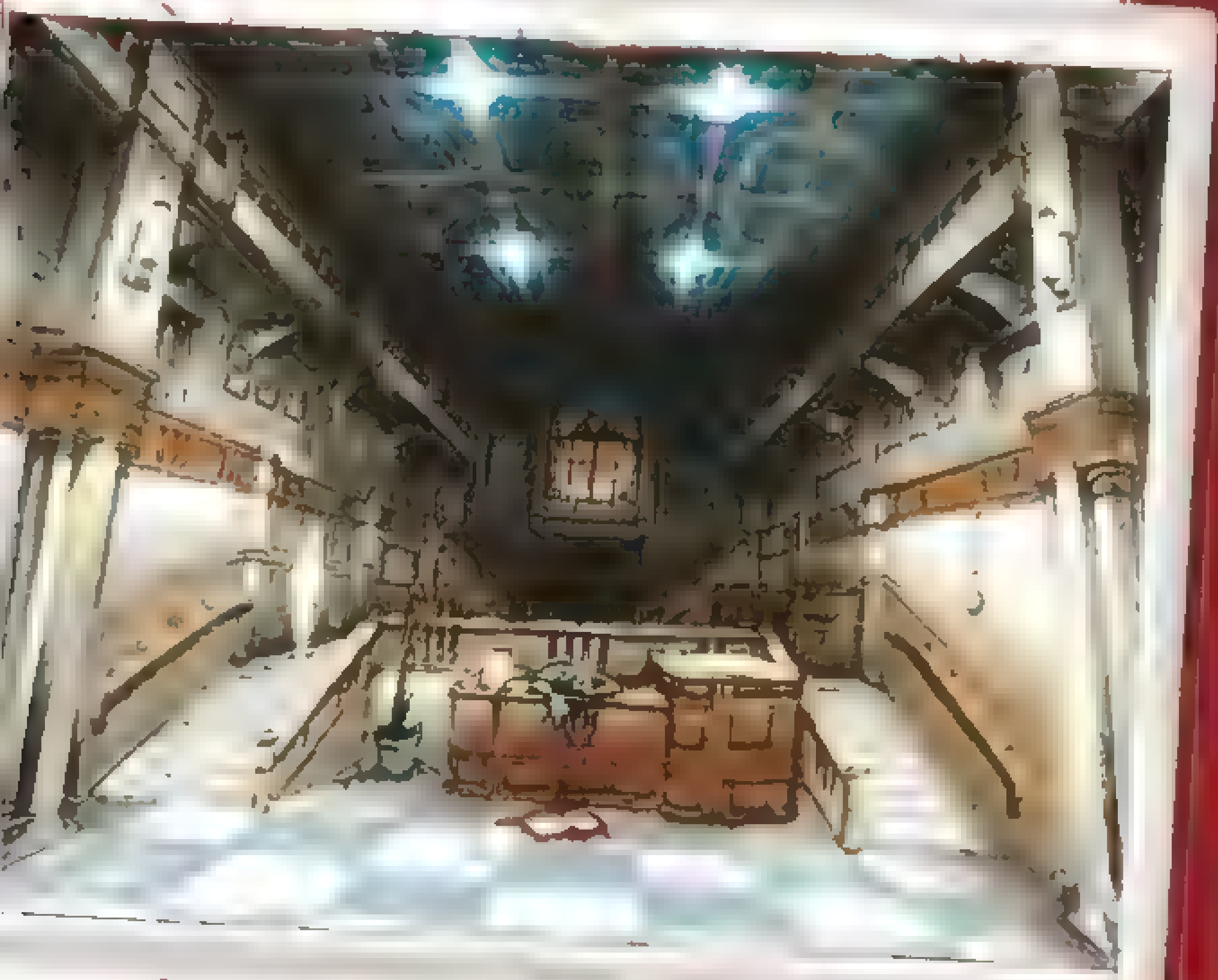
We exhume the rejected version of Resident Evil 2

It's not often that a game receives such a complete retooling as *Resident Evil 2* did during its development – almost every single in-game asset was recreated from scratch once Capcom decided to restart the project. Despite this, the rejected prototype shares many similarities with the game that eventually came out. The plan was always to offer two playable characters, as in the original game – Leon S Kennedy or Elza Walker – and the plot of the game follows a broadly similar outline. Starting from the Raccoon City Police Department, players were to make their way to a factory via the sewers before finishing up in Umbrella's secret underground laboratory.

Leon was still a rookie cop whose first day on the job went horribly wrong, and he'd still meet Ada, who was working as a scientist in this version. The main point of divergence for Leon was his secondary companion, fellow cop Marvin Branagh, who would accompany Leon and Ada through the game. In the final version, he plays a much reduced role as he is already fatally infected by the time you meet him. Elza was a motorbike enthusiast who was travelling to Raccoon City to start university when the outbreak occurred. Along the way she'd meet Sherry Birkin, who made it to the final game in redesigned form. Elza's secondary companion was a man named John, who has no equivalent in the final game, although his model was ultimately used as the ill-fated gun shop owner Robert Kendo.

Alongside your standard Zombies, enemies included infected gorillas, a freaky human-spider hybrid and of course William Birkin – who is still an oversized brute but lacks the trademark giant eyeball of the final game's design, and has a nasty tendency to smash Leon and Elza into the walls with a big metal bar. Thankfully, new weapons were available to deal with these threats. You could upgrade your last-ditch melee weapon to a metal pipe, offering additional range and damage compared with the standard knife, with other options including hand grenades and a variety of guns.

Shinji Mikami had felt that this version of the game had good individual assets but wasn't feeling right, and would all come together in the last few months of development. However, it became clear that this wasn't going to happen – with the locations in particular criticised as "dull and boring". While we wouldn't go quite that far, it's clear from the incomplete version we've got that the rejected *Resident Evil 2* wouldn't have been as exciting as the game we ultimately received. The modern police station design doesn't have the character of either the first game's mansion or the final police station and there are far too many bland corridors to run through. The new monsters don't inspire the same sort of fear as the Licker, and even William Birkin was much improved in the finished game. The scrapped version is a fascinating piece of history, though, and many of its ideas ultimately did find a place in the series.



» Concept artwork for the ominous main hall of the Racoon Police Department

> "YOU ALWAYS HAVE TO BALANCE THIS VISUAL REALISM WITH THE AMOUNT OF STRESS IT WILL CAUSE A PLAYER"
>
> Yoshiaki Hirabayashi

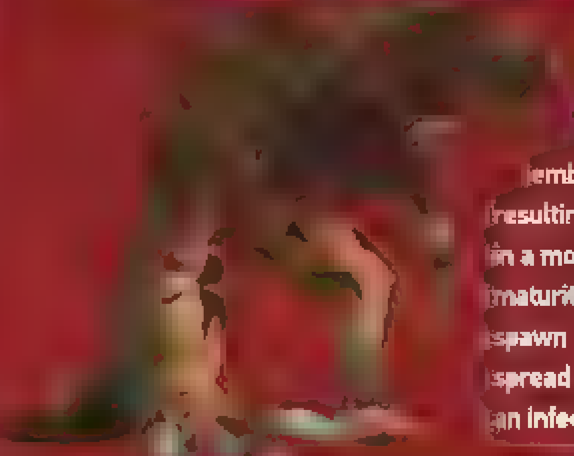
of flesh and teeth. It's the first time we see a single character undergo such changes from start to finish, and it makes a big impression.

Graphical additions were also used in conjunction with game mechanics to improve the overall feel of the game. One of the clear goals throughout development was to more visually represent the damage characters took throughout the game, and the method finally employed was to alter movement. At first, players can run around as normal, but after a few bites they'll clutch at injuries and even start to limp if they're severely wounded. Of course, a limping character is less effective at zombie-dodging than a healthy one, increasing the likelihood of further damage and adding to the tension of the game. "All of the Resident Evil games [since RE2] have used character animation to indicate threat to the player, as it's an effective way of increasing the immersion, but you always have to balance this visual realism with the amount of stress it will cause a player," says Hirabayashi. "In a horror game, some stress is necessary, so it's a matter of how you balance the two."

One of Resident Evil 2's other strengths was that it offered a strong cast of survivors, which is always a necessity in a good horror story. These weren't just characters that you wanted to protect to avoid having to restart the game – they had individual plights that you could relate to, and connections to the characters you already cared for in the original game. ▶

NEW FACES OF FEAR

Here's a selection of the biohazard bosses in Resident Evil 2



G-TYPE

■ Not everyone is susceptible to the G-Virus – if the host of the implanted embryo doesn't have the right DNA, the resulting spawn will burst forth from its body in a most violent fashion. Once it has grown to maturity, it becomes quite powerful and can spawn more of its young in an attempt to further spread the infection, but lacks the intelligence of an infected host such as William Birkin.

GIANT ALLIGATOR

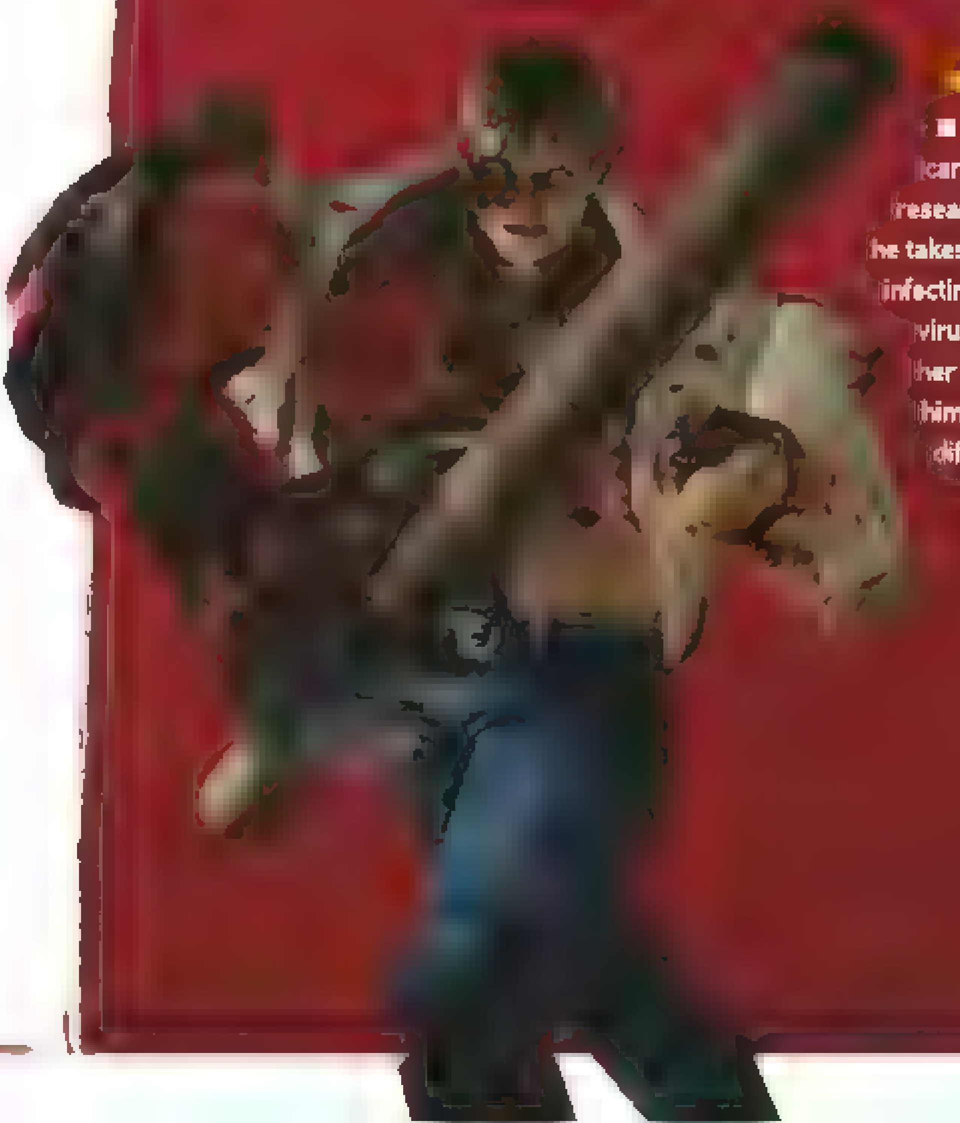
■ This beast dwells in the sewers, where it was exposed to the T-Virus and grew to an enormous size. How did it get there in the first place? We'd prefer not to think about it. You can choose to unload ammunition into it until it flees, but the better option would be to steal a page from the Jaws playbook and lodge a gas canister into its mouth before blowing it up.

GIANT MOTH

■ Since neither Leon nor Claire is carrying a particularly large jumper to feed to this oversized lepidopteran, you'll have to deal with it by firing lots and lots of bullets at it. But it's not the only thing you have to deal with, as its larvae are also present when you encounter the moth in the computer room.

TYRANT

■ While it's not the most vicious enemy on the block anymore, the Tyrant still poses a considerable threat to you whenever it strikes – and you'll have to be prepared for it to strike, because it does so frequently and without warning. After a while it sheds its overcoat and unleashes its full power, making it even more dangerous.



WILLIAM BIRKIN

■ The game's big baddie, and the main carrier of the G-Virus. A bioweapon research scientist betrayed by Umbrella, he takes vengeance in spectacular fashion by infecting himself. Now seeking to spread the virus, he hunts down his daughter due to her compatibility as a host. You'll meet him throughout the game in a variety of different forms.

CONVERSION CAPERS

The infection quickly spread beyond the PlayStation – here's what it did to different hosts

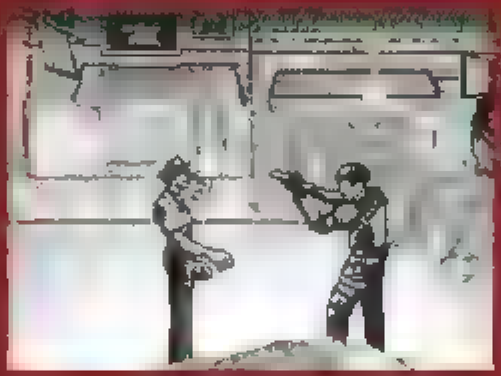
PLAYSTATION (DUALSHOCK VERSION)

1998

- As well as adding support for the DualShock controller, this revised edition of *Resident Evil 2* added the Extreme Battle minigame, as well as a 'Rookie' difficulty mode which made the main game significantly easier. The Japanese version also gained a 'USA Mode' which increased the difficulty.

GAME.COM

1998



- This wholly unique 2D monochrome version is a valiant attempt to convey the spirit of *Resident Evil 2* onto hardware that is wholly unsuited to doing so. You can only play as rookie cop Leon in this handheld version, and the action is stripped back to item management and zombie shooting, but the pixel art is actually quite nice to look at.

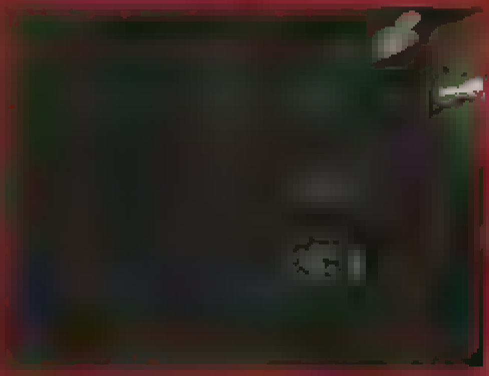
PC

1999

- Based on the DualShock version of the PlayStation game, this version of *Resident Evil 2* features various graphical settings including optional shading and high-resolution modes. Unfortunately, there are no high-resolution backgrounds. An extra Data File option is provided, however, featuring a selection of concept artwork and movies.

N64

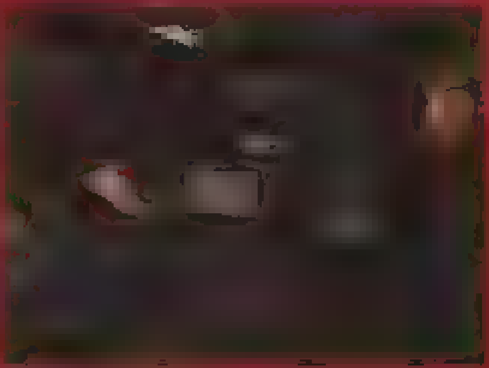
1999



- Angel Studios handled this conversion and did a pretty stellar job. The entire two-disc PlayStation game is jammed onto a single cartridge through strategic quality reductions on FMV, speech and background images. The game includes an optional revamped control scheme, a randomiser mode and extra costumes, plus bonus files expanding the story content.

DREAMCAST

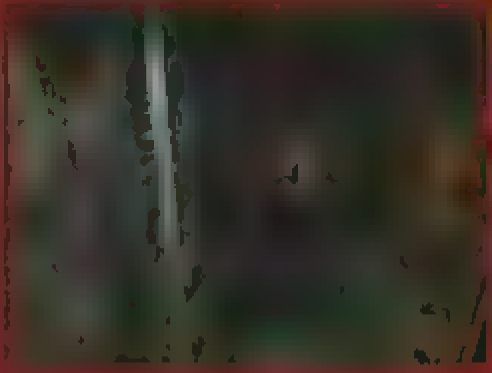
1999



- The version for Sega's console is based on the PC version, even running via Windows CE, and runs in high resolution with the low-resolution backgrounds. The Data File is retained, and FMV quality is very high. Your character's health and ammunition status are displayed on the VMU, saving you the occasional look at the menu.

GAMECUBE

2003



- This odd conversion feels slightly out of time, released after the *Resident Evil* remake and *Resident Evil 0* in order to make the whole *Resident Evil* story available to GameCube owners. It's a straight port of the DualShock version, with high resolution 3D models and the same low-res backgrounds.

> "THE SERIES HAS COME THIS FAR BY USING STORYTELLING WHICH MAKES PEOPLE WANT TO KEEP GOING"
>
> Yoshiaki Hirabayashi

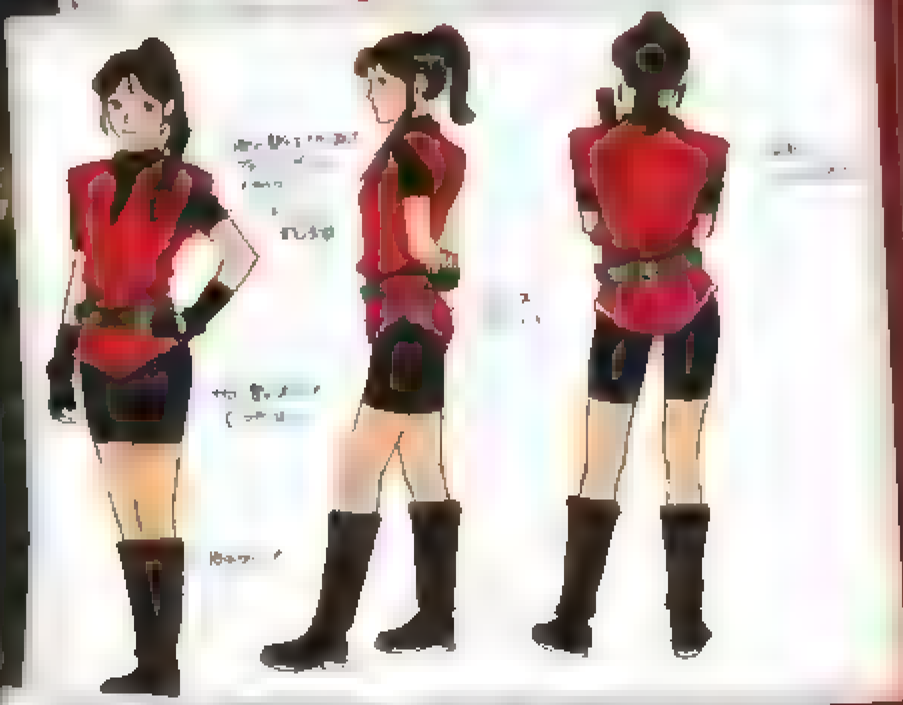
"Since the first game in the series, the appealing characters and the storylines they are involved in have been one of the most popular elements of the franchise," says Hirabayashi. "I think that by having a cast of characters related by blood or organisation, we've been able to increase both the consistency of the series storylines and the connection players feel to the characters."

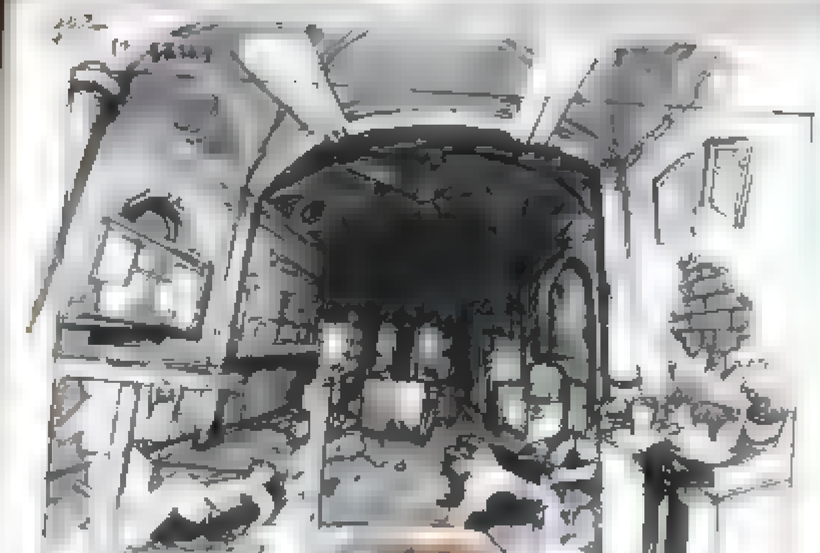
Like its predecessor, Resident Evil 2 offered the choice of a male or female protagonist – but unlike the characters of the prior game, these weren't special operatives with heaps of combat training, making them somewhat easier to relate to. Though he was a trained police officer with his own weapon, Leon Kennedy was a rookie, arriving for his first day on the job to find a situation beyond all expectations. "Leon is an appealing character in terms of his personality and looks, and also I think he's been in games which may have been many people's first Resident Evil games. So they may feel a special connection to him in that sense," says Hirabayashi. Indeed, even when the development of the game was restarted, Leon's character design and backstory were changed very little. It seems like Capcom's staff knew they were onto a winner with him, so it's no surprise that he has returned in games such as RE4 and RE6.

The game also expanded the use of partner characters over the original, as each could be controlled during key points in the story. Leon's partner was Ada

» [PlayStation] The spark shot is a valuable weapon against the game's toughest enemies, but its ammo is strictly limited

PlayStation. Much like the original Resident Evil, it is wise to save ammo for situations like this



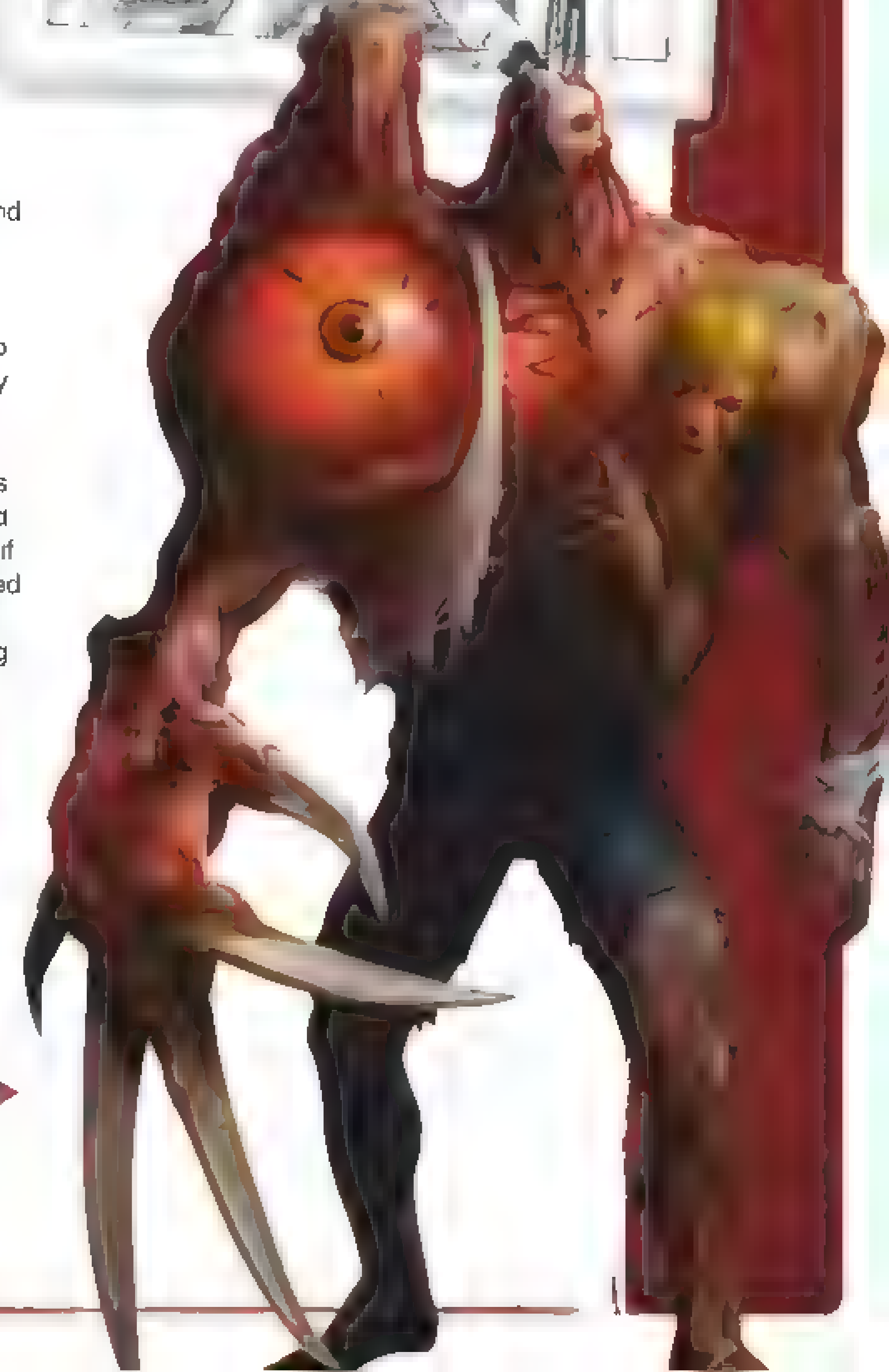


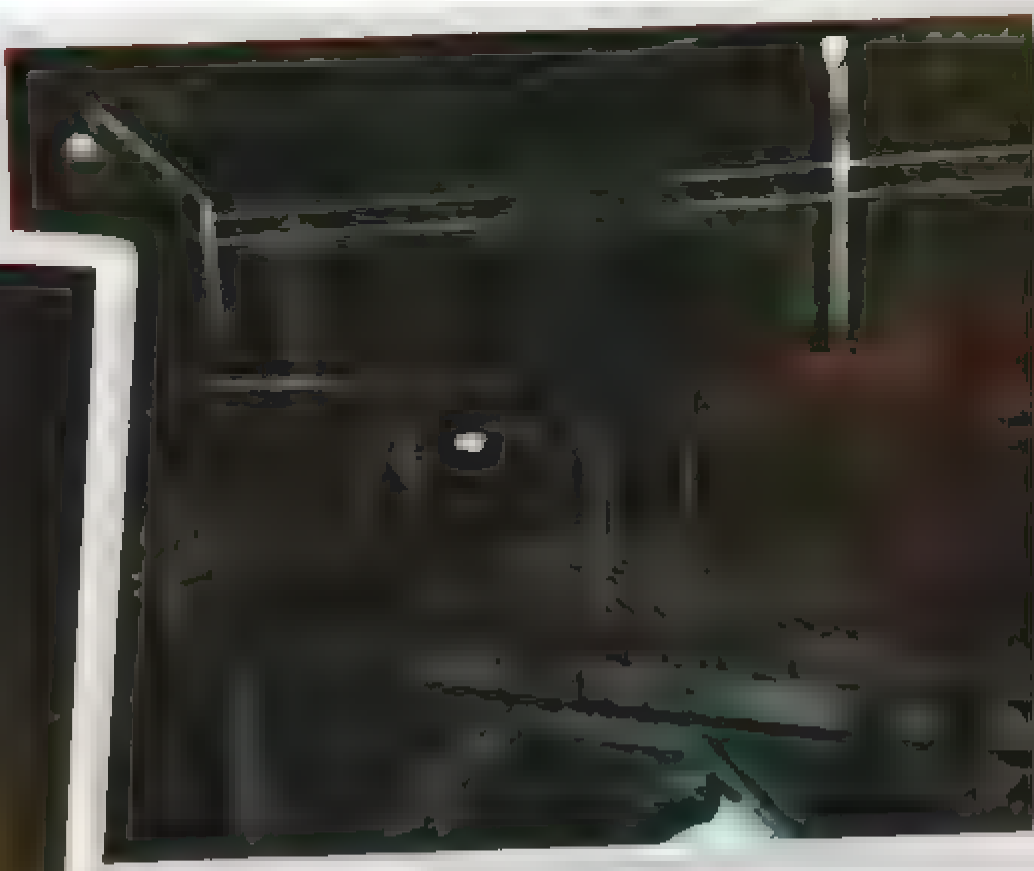
Wong, a mysterious woman whose motives are never entirely clear, and who serves as a friend, foe and love interest. Her appearance within the game raised more questions than it answered – but as Hirabayashi points out, such characters serve a key purpose in a series like Resident Evil. "It's satisfying to have a story where everything is explained, but you can also leave open some possibilities for the future by having a story which is generally resolved but leaves some mysteries. The series has come this far by using storytelling which makes people want to keep going and find out what happens next," the developer explains.

The other main character was Claire Redfield, whose character was evolved from the original Elza Walker concept. She retains most of the backstory and personality traits of the original design, including her love of motorbikes and status as a student, but was rewritten as being the younger sister of Chris Redfield in order to better tie the game into the overall Resident Evil story. She's the first civilian protagonist in the series, but remains a tough and capable fighter. She finds herself protecting Sherry Birkin, the daughter of the game's hideously mutated antagonist. "Family is one of the most important themes in the story, so having a child character really adds to the ability to tell a story like that," notes Hirabayashi. Indeed, one of the primary fears of zombie horror is seeing your loved ones not only killed, but turned against you – and the fact that William Birkin retains just enough of himself to doggedly pursue his daughter makes him that much scarier. Uniquely, Sherry is unarmed but is small and quick enough to dart around most of the enemies she'll encounter.

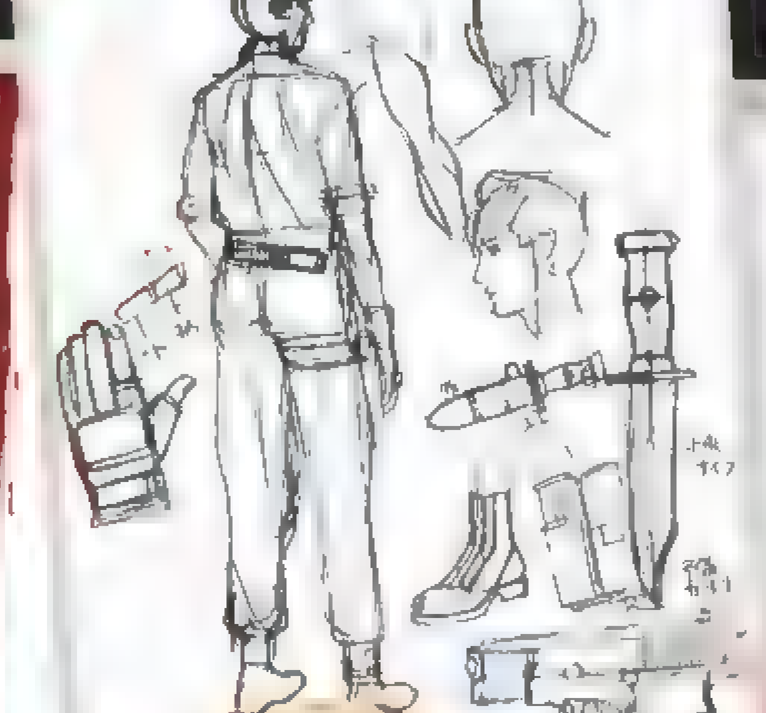
PlayStation. The police station's history as a museum better frames its eccentric art-based puzzles

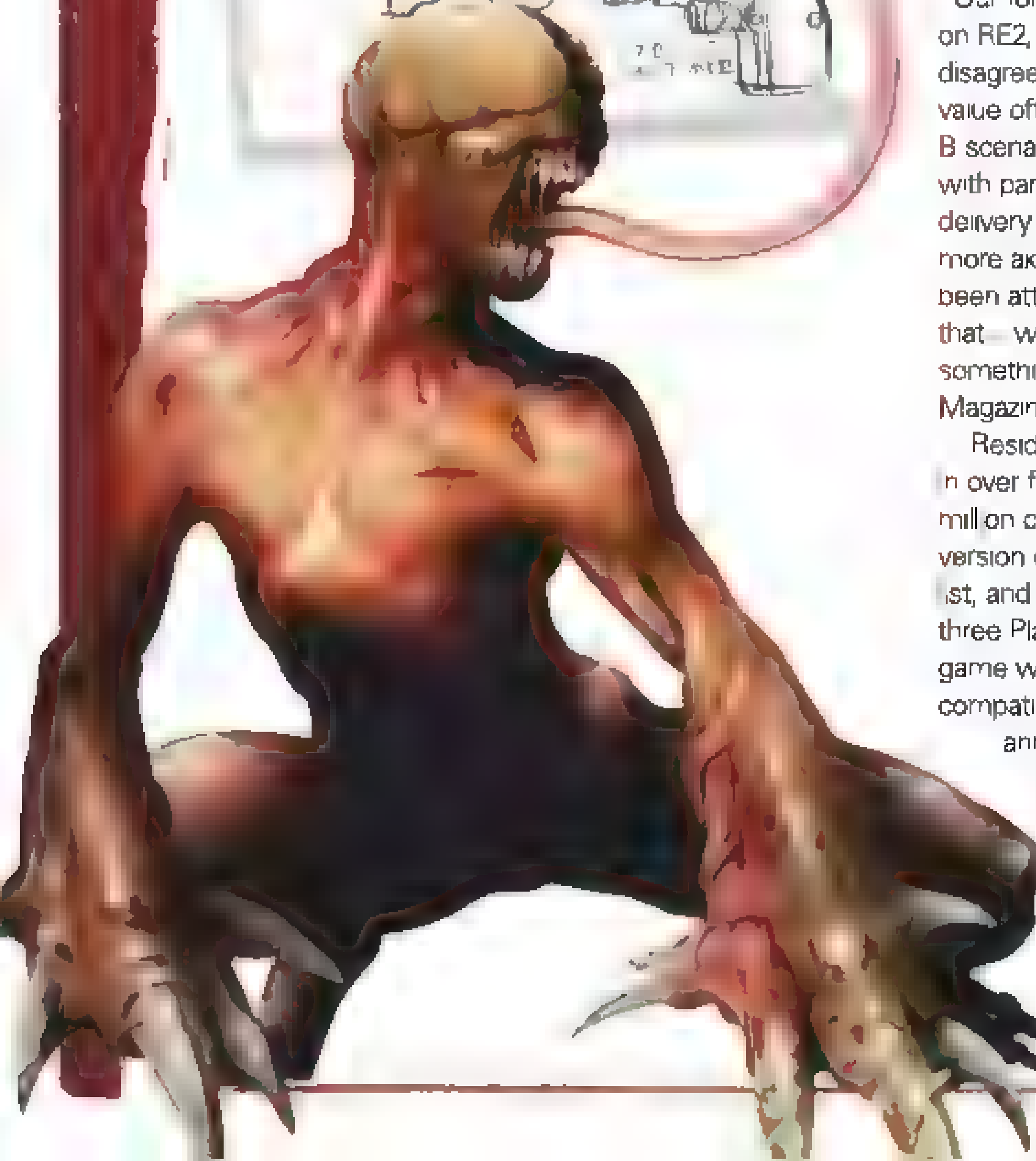
One of the biggest game design innovations in Resident Evil 2 was a 'story zapping' system. "Resident Evil let you choose from two characters to play as, giving you multiple perspectives on the story. I imagine the team wanted to go even further than Resident Evil did in mixing the story and gameplay system together to create the zapping system," says Hirabayashi. Each character could play through A and B scenarios, examining what would have happened if the car crash at the beginning of the game had turned out differently, stranding the characters on the other side of the truck. But it's more than just a storytelling trick – the actions you take in the A scenario affect subsequent sessions in the other character's B scenario. For example, the A scenario character can make things harder for the B scenario character by taking key items like the submachine gun, or make things easier by destroying certain unique enemies that won't appear later. This is certainly innovative, though as Hirabayashi notes, "It's definitely a tough challenge to design a game around such a feature." The increased scope of the game meant that two discs were needed to deliver the full game, even with space-saving measures such as the use of chip-generated music rather than a CD ▶





» [PlayStation] Claire tries to fend off an adult G embryo, as well as its offspring.





» [PlayStation] What's worse than a Tyrant? A flaming Tyrant and a time limit. This game doesn't skimp on drama.

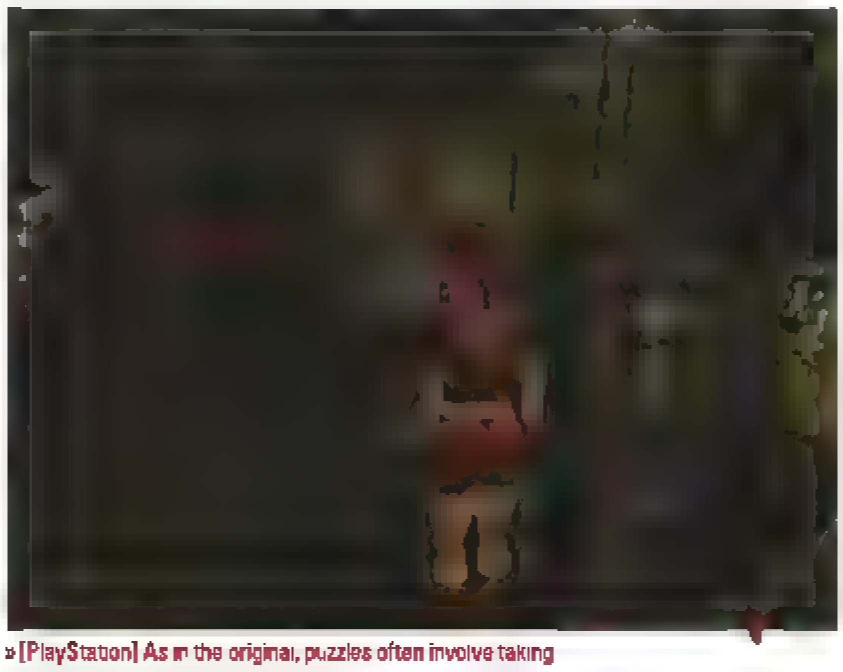
▶ soundtrack (not that you'd notice the difference if you weren't told – the quality is superb).

When Resident Evil 2 was released in 1998, it drew widespread critical acclaim. The game was awarded 96% by Play's Alan Rausch, who praised the game for its "varied and exciting" locations as well as its setpieces. He also compared its relationship to the original with that of the movie Aliens – "the adventure has progressed from tense, gritty origins to all-out action." In CVG's 5/5 review, Steve Key noted that "Our forum page on Game Online has differing views on RE2, many complaining that it's too short," but disagreed with that assessment, noting the replay value offered by the two characters and their A and B scenarios. Edge's review scored the game 9/10, with particular praise given to its advances in plot delivery – the magazine felt that it was "a videogame more akin to a movie than almost anything else that's been attempted", and that "the sequel has a script that – while not exactly Shakespeare – isn't far short of something like the X Files." The Official UK PlayStation Magazine also scored the game 9/10.

Resident Evil 2 was Capcom's best selling game in over five years. The PlayStation version sold 4.96 million copies, which put it behind only the SNES version of Street Fighter II in Capcom's all-time list, and just beats out the combined sales of the three PlayStation versions of the original game. The game was re-released later in 1998 with DualShock compatibility. The first conversion of Resident Evil 2 announced was for the Saturn, but it was cancelled in mid-1998 due to apparent concerns over quality – though the system's rapidly declining fortunes would certainly have played a part in that decision too. The game eventually came to PC, N64 and Dreamcast in 1999, achieving critical acclaim across all three formats. A GameCube release in 2003 was less well-received, mostly due to the fact that it was a straight conversion of a five year old game, arriving after the wonderful remake of the original.

All these years later, Resident Evil 2 stands the test of time. Readers of **Retro Gamer** voted it the greatest PlayStation game in issue 127's top 25 list, and they also placed it highly in issue 150's countdown of the top 150 games of all time. The game has an enormous legacy, too. "It has been an inspiration for the entire series ever since it came out, and of course, for the reimagined Resident Evil 2, it's the main source of all our inspiration! What we are trying to do is design a modern game system which matches up perfectly with the key pieces of the original game which we want to try to keep intact as much as possible," says Hirabayashi.

Indeed, the success of the game did much to determine the future direction of the series, particularly its setting, as proven by how often the destruction of Raccoon City has been expanded upon and revisited. Resident Evil 3: Nemesis follows the story of the original game's Jill Valentine as she attempts to escape the city, pursued by the almost unstoppable Nemesis creature. The two Resident Evil Outbreak games for PS2 also explored different

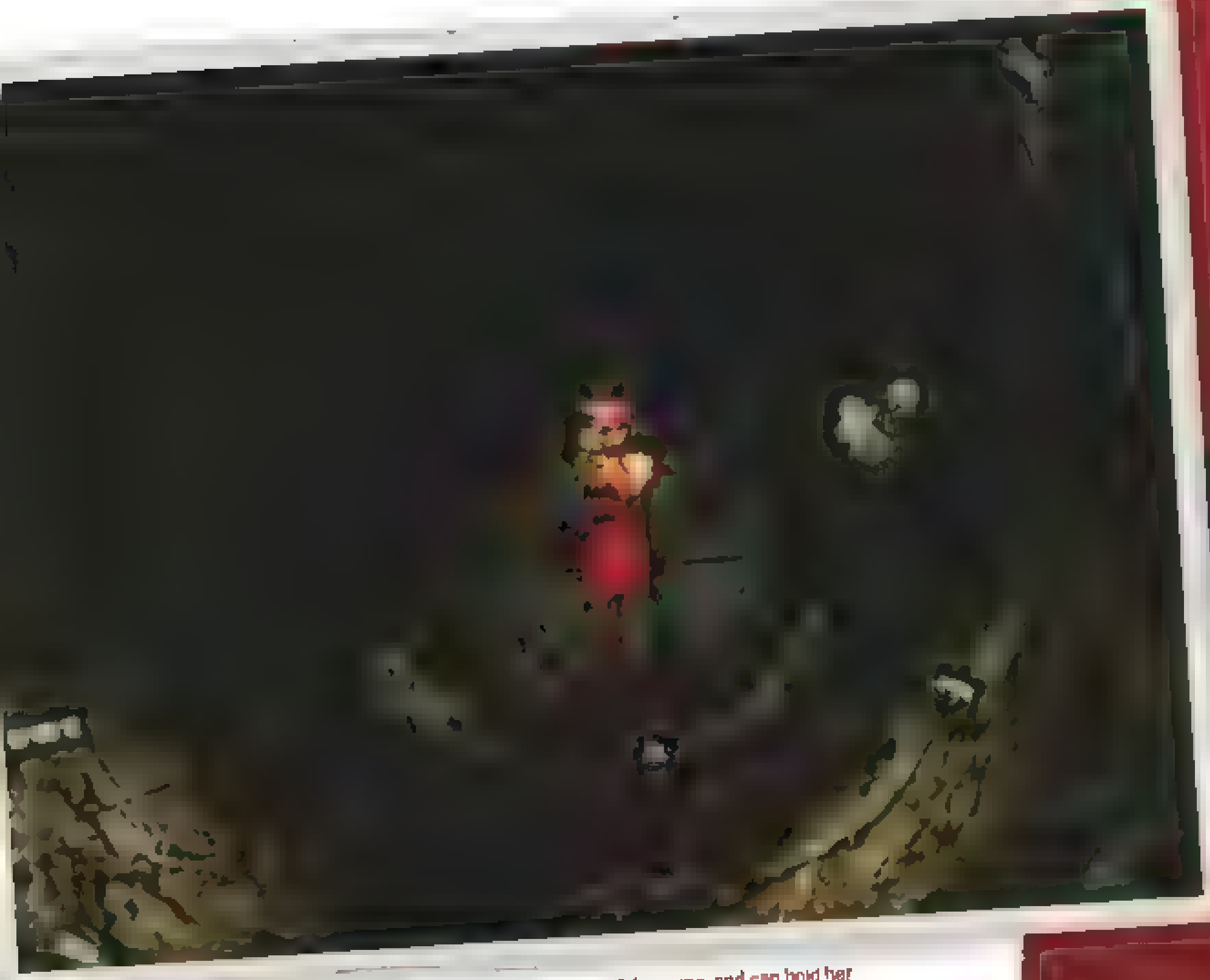


» [PlayStation] As in the original, puzzles often involve taking complex steps to acquire key items.

> "IT HAS BEEN AN INSPIRATION FOR THE ENTIRE SERIES EVER SINCE IT CAME OUT"
>
> Yoshiaki Hirabayashi

aspects of the town's destruction with a cast of civilian characters. The on-rails shooting spin-off Resident Evil: The Umbrella Chronicles retells the events of Resident Evil 3, with Ada Wong and HUNK's background roles explored in sub-chapters, and its sequel Resident Evil: The Darkside Chronicles retells the events of Resident Evil 2 directly. Finally, the spin-off Resident Evil: Operation Raccoon City is a third-person shooter, offering an alternative retelling of the events surrounding the city's destruction. Even though the series has moved away from Raccoon City, the plot still frequently features the Resident Evil 2 cast, with Leon and Claire taking starring roles in later games.

But just what is it that allowed this game to make such an enduring impression on players? It's hard to single out any one thing. As a sequel, it was a dramatic upgrade over the original – but that doesn't account for the game's impact on newcomers. To focus on the compelling story presentation is to ignore the way the game design amplified the feeling of dread, and vice versa. So we'll leave the final word to Hirabayashi. "Resident Evil 2 was able to keep the survival horror atmosphere of the first game while substantially scaling up the dramatic and entertaining story and gameplay for an all-round incredible experience," he concludes. "Different players enjoy the series in their own different ways, but Resident Evil 2 was a game which had pretty much all the different aspects of Resident Evil that fans love." ✱



» [PlayStation] Ada Wong becomes playable during parts of the game, and can hold her own against the biohazards.

MUTATING A MASTERPIECE

Yoshiaki Hirabayashi speaks to us about remaking one of Resident Evil's most celebrated games

Thanks to the 2002 GameCube reimagining of the original, *Resident Evil* is already home to one of the great videogame remakes – so it's no surprise to learn why the sequel has now been remade. "We had requests from the fans for many years to create a remake of *Resident Evil 2*," says Hirabayashi. "We wanted to not only respond to our passionate fanbase but also deliver a whole new zombie horror gaming experience that utilised the Capcom in-house proprietary engine, RE Engine, to bring it to life on current gaming consoles and also attract a whole new audience that may not have been around for the original release in 1998."

Much like the remake of the first *Resident Evil*, which added new elements, the new *Resident Evil 2* makes some changes to the 1998 original. "We have been balancing respect for the original designs with reimagining and restructuring them for a game coming out in 2019. This includes combat, the route through the game, as well as the designs of characters, locations and enemies," Hirabayashi tells us. "We know that since the original game came out 20 years ago, players have become accustomed to differences in the gaming environment, and want to bring them the ultimate survival horror experience." If you've followed the progress of the game so far, you'll know that characters such as Claire, Ada and the Tyrant have been redesigned – and it's not just characters that have received a refresh. "We don't want to give too much away and spoil the final game experience for fans but there are new areas in the remake that fans won't have seen before! The layout of the RPD has changed as well so things won't necessarily be where players remember them being."

Where the GameCube remake of *Resident Evil* updated the visuals and content but retained the fixed camera presentation and tank controls, *Resident Evil 2*'s remake is presented in full 3D. "We tried out a fixed camera like the original game at the start of development," explains Hirabayashi. "It was certainly unique, but we felt it would make the game difficult to control for a lot of people, especially those more accustomed to modern game experiences," he admits. Without care, such a change could dampen the atmosphere of the game, as key moments such as the first Licker encounter rely on the camera perspective to create tension. However, creative thinking appears to have mitigated these problems. "We decided to use a *RE4*-style over-the-shoulder camera, and we felt we could reproduce the kind of effect the original *RE2* got from its fixed angles – fear of off-screen enemies – using level design, lighting effects and sound design," he continues. "This let us deliver the key point for us – the fear of being bitten by the zombies – in a very effective way."

It certainly seems remarkably effective – we're happy with zombies staying as far away from us as possible, and the gruesome visuals are a little too believable for comfort. But this technological advancement allows the gore to be more than just window dressing, as we've seen a zombie trying to crawl around after a well-placed shot severs its leg at the knee. Another gets shot in the arm, only for the rotten limb to limply hang by a thread. What else does modern technology bring to the table? "There are so many things, but one example is the movements of the Licker are much more three-dimensional now," responds Hirabayashi. "In the original game we could show it moving across the ceiling in the cutscenes, but it wasn't possible to achieve this during gameplay. It's extremely scary and fun how it's able to attack players from all sorts of places now!"

Frankly, we're a little scared to face up to the horror of the reimagined *Resi 2* – it looks like it's shaping up to be genuinely terrifying. The game is due for release on 25 January for PS4, Xbox One and PC, so you should be able to see for yourself just how disturbing it is.

[illegible]

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OPERATION WOLF

Taito's blaster was a big hit in the arcade – shooting the attached Uzi was a dream come true for a lot gamers. But what if you wanted to experience it at home? Retro Gamer speaks to Ivan Horn on how he helped those dreams become reality… minus the Uzi

INFO

» ARCADE RELEASE:
1987

» ZX SPECTRUM RELEASE:
1988

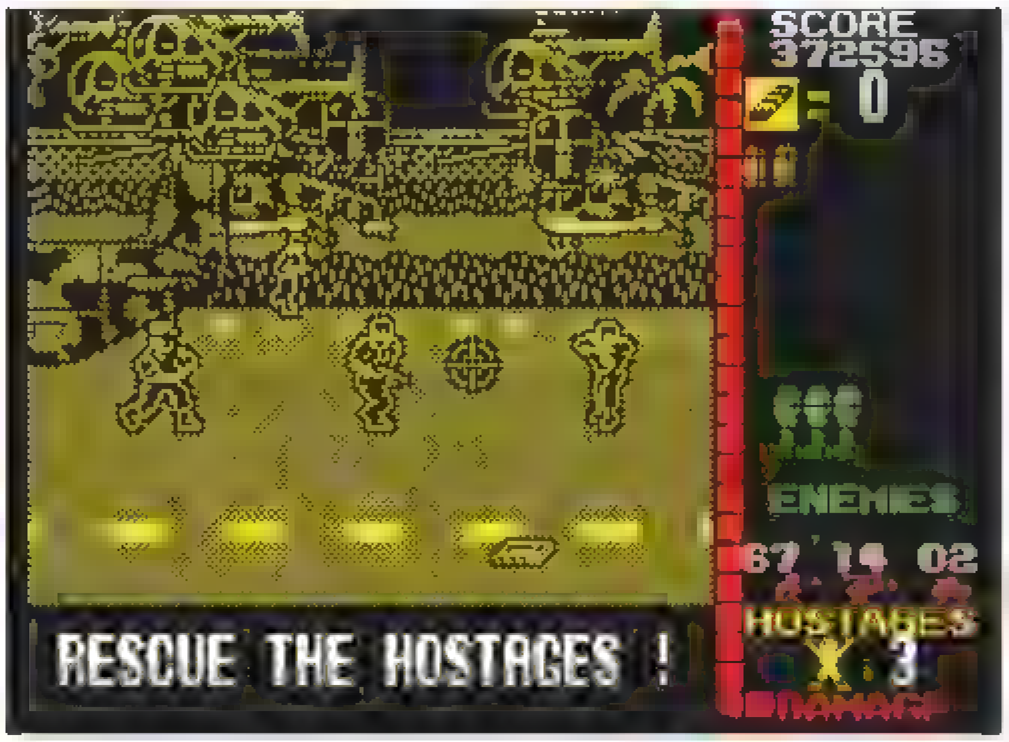
» CONVERSION TEAM:
IVAN HORN/ANDREW DEAKIN

» AVERAGE SCORE:
90%

Having just finished Ocean Software's conversion of Combat School, Ivan Horn and coder Andrew Deakin were next given the job of taking on another military based arcade conversion though this time it would be more about taking out the enemy rather than taking out your joystick. No stick waggling this time but a full on assault of taking out anything that moves, except for hostages, of course.

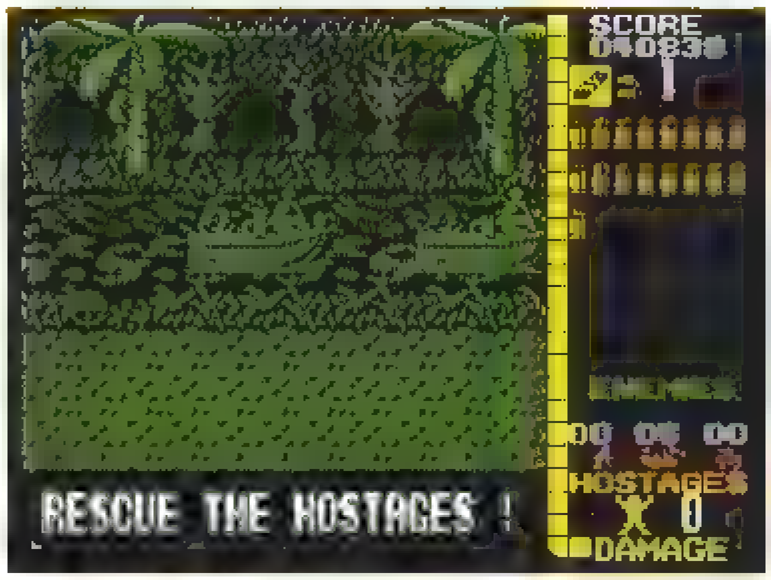
The success of Operation Wolf in the arcade would mean a ZX Spectrum conversion would have to have been of a similar high standard, so imagine having the job of completing this with the minimum of reference material. The bare minimum you would expect when looking at completing arcade conversions would usually be video of a complete runthrough of the game, but unfortunately for Ivan and Andrew this was not something they were provided with.

With just an arcade machine of the game in the office for reference, Ivan took this problem into his own hands, though this wasn't an easy solution by any means. Ivan explains, "We had no cheat codes for the arcade, so to get an end to end recording of the game, I had to learn how to play all the way through to the end. Fortunately for me, the game was fun to play and I learnt to play it pretty well. For us to get the full recording, I would play the game with a video camera filming over my shoulder as I played. After a lot of playing, I did manage to get to the end so we had the full recording. I got that good at the game that I could play through it three times, even with the difficulty being ramped up each time."



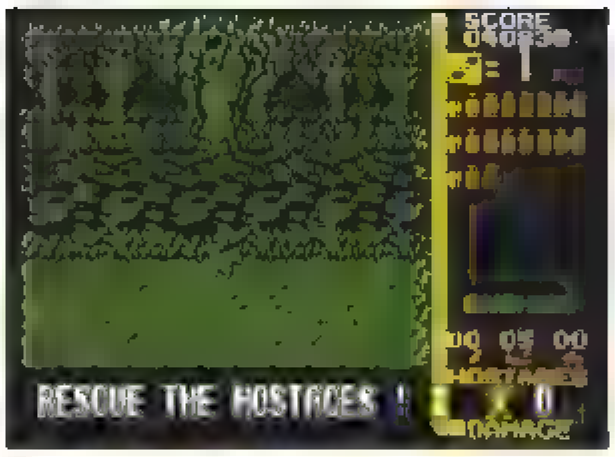
So with a self made walkthrough video in the bag, it was time to move on to development. The original Operation Wolf levels always had a lot going on so transferring the game to the Spectrum would be a challenge, with some elements needing more attention than others. "We had to cut down on things where we could, but nothing that we had to omit in its entirety," continues Ivan. "These would have been things such as not having every frame of animation of every character and needing to use smaller explosion graphics. There were quite a lot of character animations (on the arcade), with some of them appearing quite large on screen, so we had to cut corners here on these here and there to fit it into the Spectrum's memory."

The technical challenges didn't stop there as another test for the team would be getting the scroll effect right to match that of the one found in the arcade original. Perfecting this on the Spectrum would require a lot of work. "One of the technical decisions for the game was to make it a preshifted tiles scroll, rather than the 'Push Pop' method (developed by Joffa Smith) that was used in the likes of Cobra and Green Beret. With the preshifted method, I had to create a set of four versions of each unique tile of the background, with the contents of the adjacent tile shifted into it by two, four and six pixels. Each 16x16 pixel tile would be displayed as the unshifted tile, followed by the two, four then six pixel shifted versions." Ivan continues. "Finally the original unshifted tiles would be displayed again, but offset by one character (eight pixels). This allowed for a pretty quick scroll but did take some time to set the art for and chewed up a lot of memory."



The game was created using a development package called Machine Lightning which was the equivalent to today's game engines such as Unreal or Unity, and something that both Ivan and coder Andrew Deakin used prior to working for Ocean. You may be surprised that the art tool contained within the package was actually written in BASIC, though Ivan remembers it fondly. "The art tool was pretty good as I remember, and quick to use. I made a couple of small alterations to the behaviour of it to extend its usefulness. It was my tool of choice for the first few games I worked on at Ocean."

With regards to the game's code, this was all written on a CPC 6128 as this was coder Andrew Deakin's weapon of choice having used one for the majority of his previous work. Though the 6128 was used for the code, it was the first time both Ivan and Andrew used one to actually create a game for and on it simultaneously using HiSoft's DevPac as an assembler and connecting the CPC to the Spectrum via an RS232 interface. Ivan and the team were working on both the Spectrum and Amstrad versions at the same time which had its benefits. "The plan was that we would be working on the conversions until fairly late into 1988 having started in December 1987


SCORE
RESCUE THE HOSTAGES !
HOSTAGES
DAMAGE

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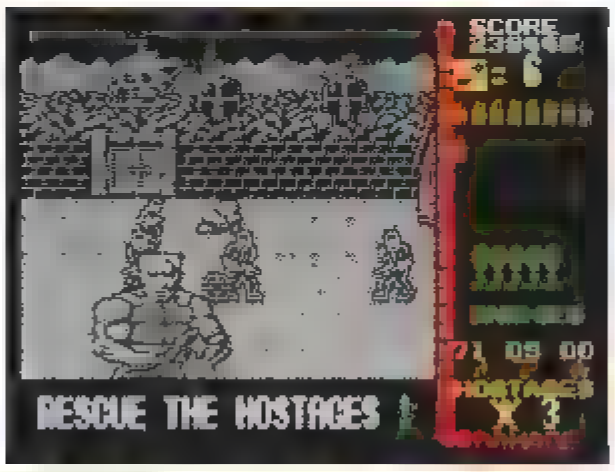
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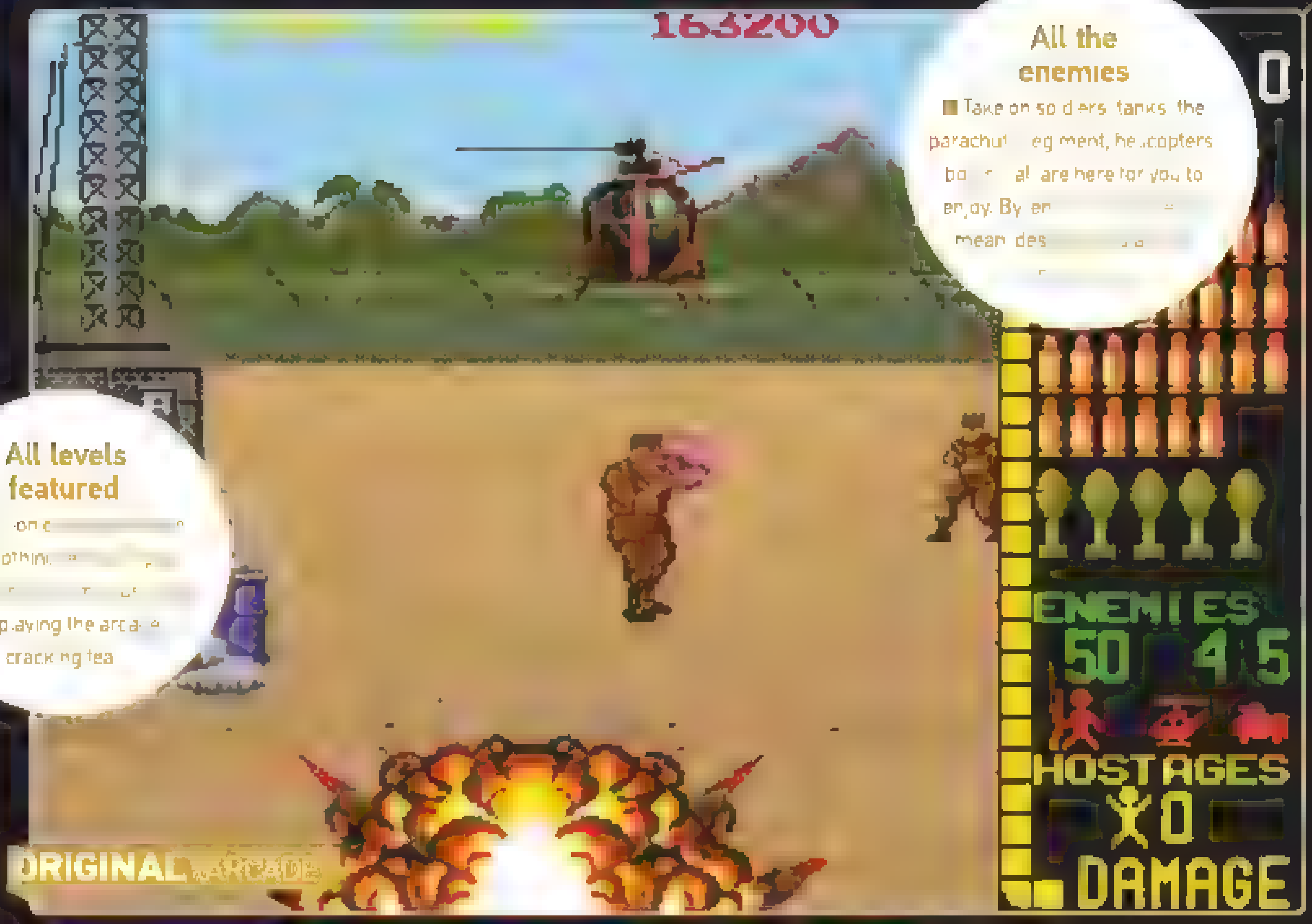
so we were scheduled to finish probably in October or November. As it turned out, we managed to do the conversion to both platforms in about five months. This was partly down to some tasks not needing to be done twice, like mapping out the game for example."

With regards to memory limitations of the Spectrum, Ivan recalls, "For Operation Wolf, as well as our other games on the Spectrum, memory was always tight and one of the tricks to get a little more was to use the printer buffer, which gave us 384 bytes extra – that's not even enough for a desktop icon these days, but it was valuable extra memory back then when we only had 16K to play with."

Most Spectrum players would agree that Operation Wolf was not just a solid arcade conversion but also a great Speccy game in its own right, capturing the essence of the arcade original and also making its way into the official Your Sinclair top 100 games of all time. There are not many shooters out there as good looking and accomplished as Operation Wolf so, not only were Spectrum fans happy with this conversion but it's something Ivan is proud of, too. "I was pretty happy with the final version of the game, both on Spectrum and Amstrad and overall, I think it was a pretty accurate conversion, especially given the graphical limitations of the Spectrum." ✱

HOW ACCURATE IS IT?


ORIGINAL ARCADE
163200
ENEMIES
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HOSTAGES
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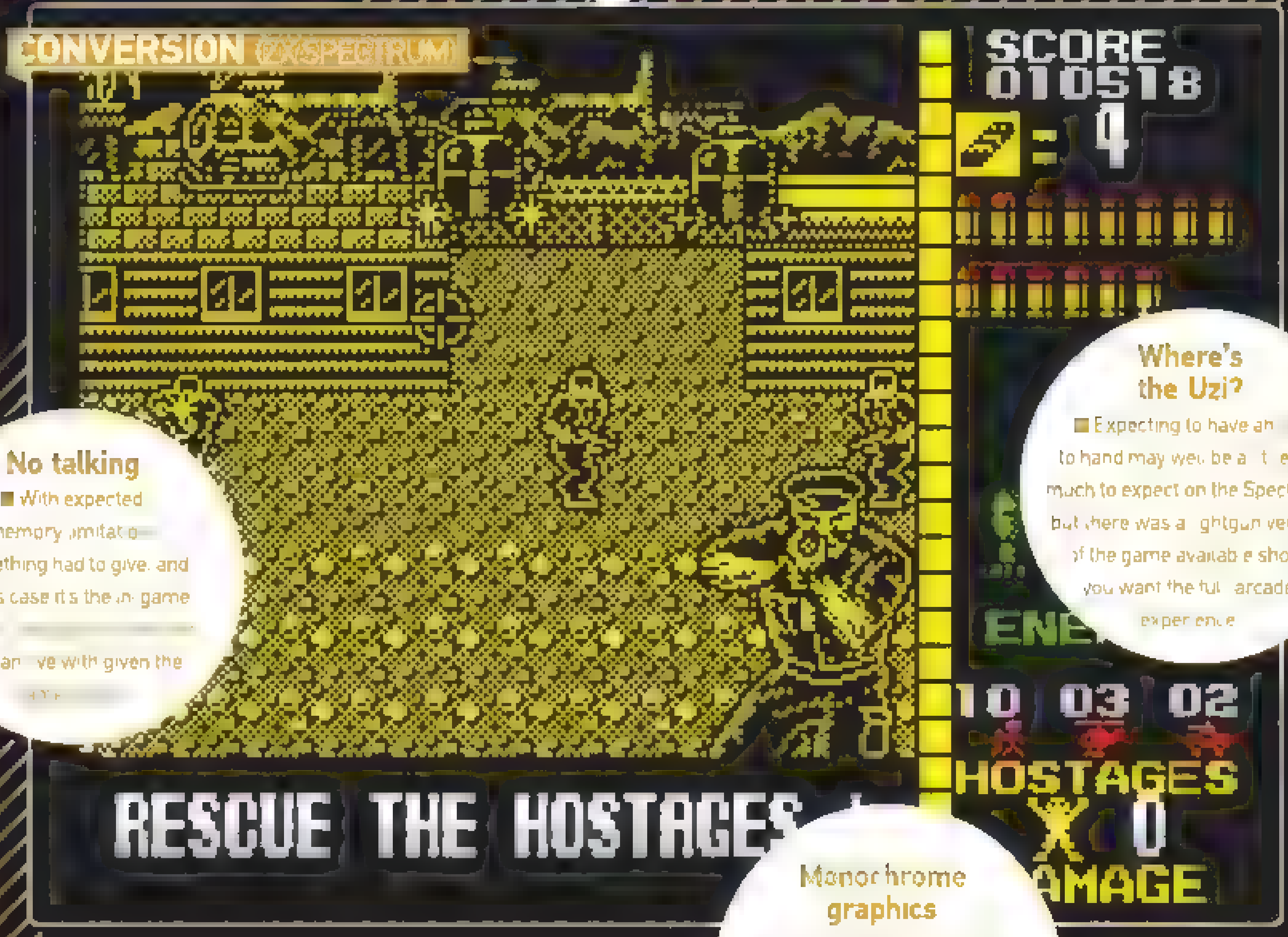
DAMAGE

All the enemies

■ Take on soldiers, tanks, the parachute regiment, helicopters, boats [illegible] all are here for you to enjoy. By en[illegible] mean des[illegible]

All levels featured

■ A tu[illegible] on c[illegible] with nothin[illegible] were playing the arcade cracking tea[illegible]


CONVERSION ZX SPECTRUM
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No talking

■ With expected memory limitatio[illegible] something had to give, and in this case it's the in-game [illegible] we can live with given the [illegible]

Where's the Uzi?

■ Expecting to have an [illegible] to hand may well be a [illegible] much to expect on the Spectrum but there was a lightgun version of the game available should you want the full arcade experience.

Monochrome graphics

■ It may well be a given that conversions on the Spectrum lose the colour of the original and this is what we have here, though [illegible]

ULTIMATE GUIDE: VIGILA

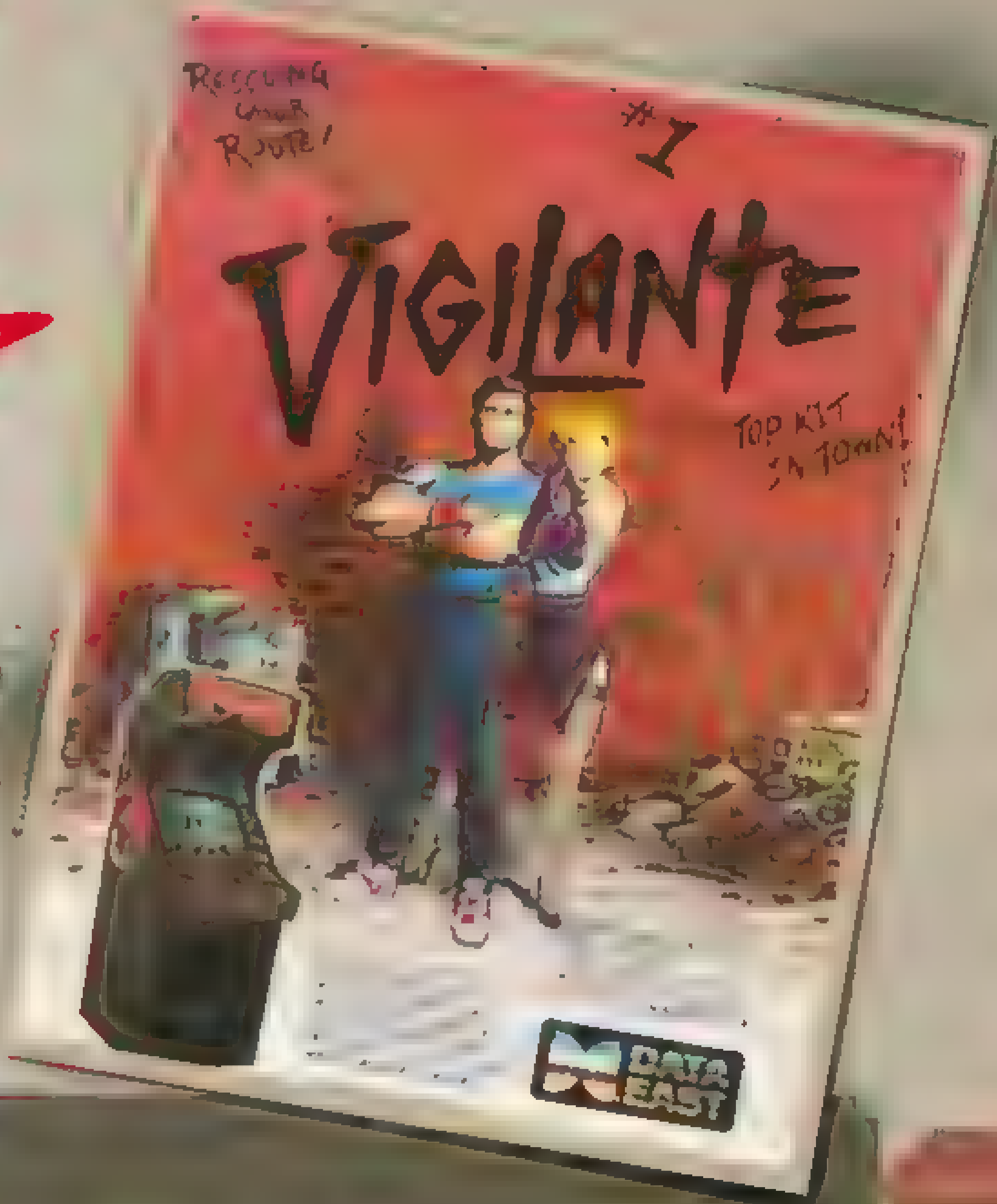
The skinheads have kidnapped your girlfriend Madonna, leaving you no choice but to take to the streets and get her back through a deserted junkyard and perilous construction site, it's time to kick some punk butt!

Words by Graeme Mason

Kickstarted by the success of Technos' Double Dragon, the mid-to-late Eighties saw a whole clan of urban vigilante-themed arcade games follow those furious Lee brothers on to the streets. Having scored a big hit with Kung-Fu Master, Irem Corporation joined the party in 1988 with Vigilante, an unsubtle revenge tale moulded around its high-kicking 1984 classic, and the game begins in a mightily familiar fashion. A criminal gang, for reasons unknown, has kidnapped the hero's girlfriend, the lady Madonna, and is holding her hostage. But this time they picked on the wrong guy, and he takes to the streets of New York to destroy the skinhead gang and get his girl back.

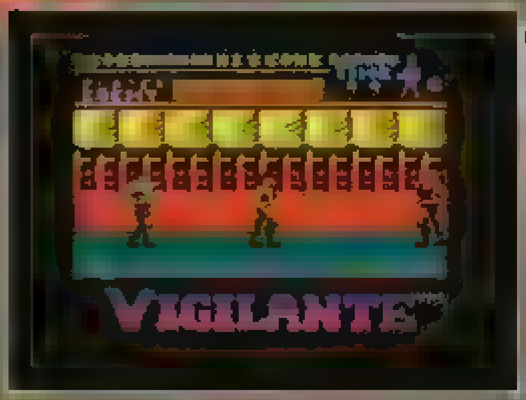
Even in a 1988 arcade there must have been a strange retro charm to Vigilante. Gone is the vertical movement and multiple levels of games such as Renegade and the aforementioned Technos hit. Gone are the range of moves such as a reverse kick and shoulder throw. Instead, Vigilante begins on the hero's local streets and ▶

NTE!



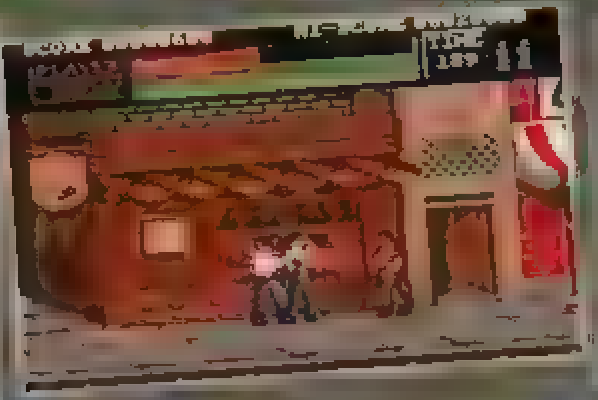
This time they picked
on the wrong guy...

CONVERSION CAPERS



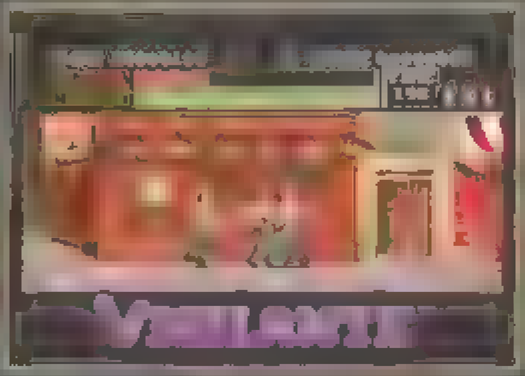
AMSTRAD CPC

■ While its presentation is colourful enough, the Amstrad CPC version of *Vigilante* leaves much to be desired in terms of gameplay. Choppy scrolling and interminably slow lead character movement make this one to be avoided despite some half-decent boss fights.



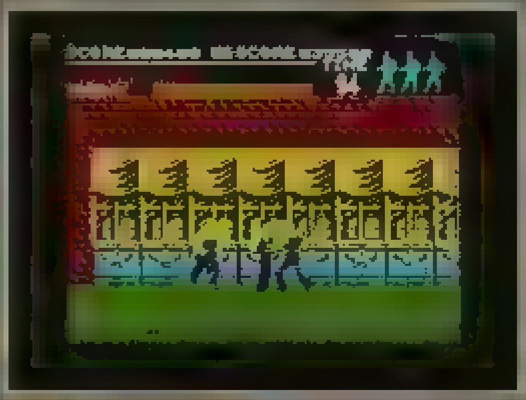
AMIGA

■ While looking the part, the Amiga fails to do justice to the arcade original. There are plenty of pretty sound effects, and some of its graphics even edge the arcade game. But with the hero moving at snail's pace, it just plays too slow.



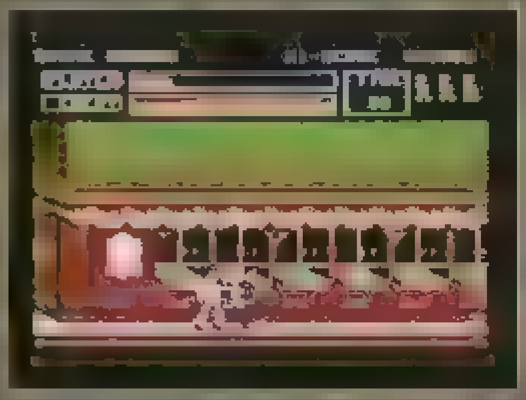
ATARI ST

■ Despite boasting some very pretty background graphics, this version unfortunately lacks elsewhere thanks to juddering scrolling, poor hit detection and mediocre sound. A disappointing effort that even pales in comparison to the Amiga port.



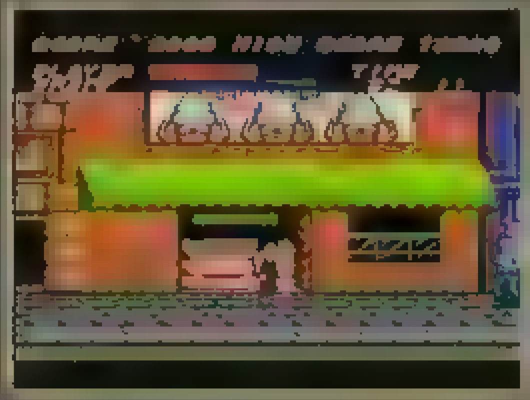
ZX SPECTRUM

■ The option to play in colour or monochrome was a novel addition on a platform riddled with the latter style of games, and Spectrum *Vigilante* plays reasonably well, too, perhaps benefitting from the relative simplicity of the original game. A fair conversion.



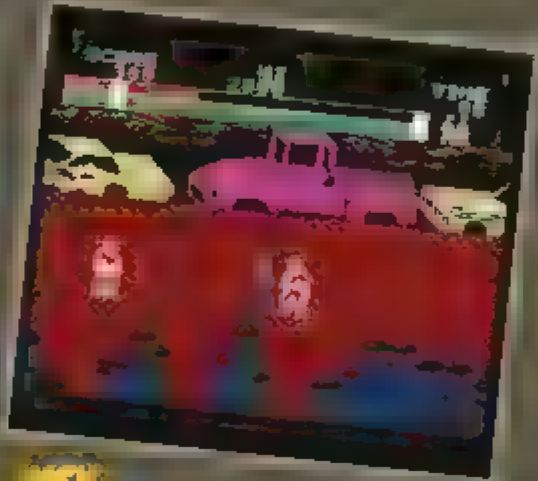
COMMODORE 64

■ This is another good-looking port that lacks a certain something once you press start. The amended final level is understandable perhaps, as is the multiload; the surprisingly average sound and slow gameplay is not



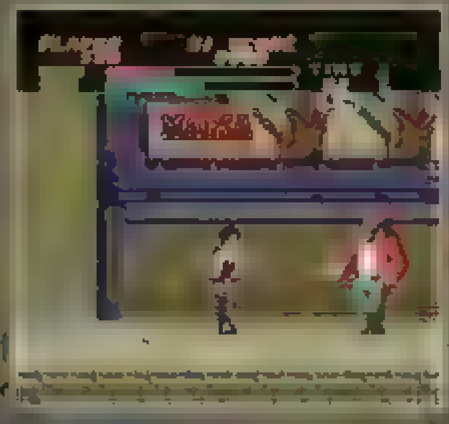
MASTER SYSTEM

■ Master System *Vigilante* brings in a few changes with the captured Madonna now called Maria, and the skinheads now dubbed the Rogues. It's a decent port, although the speed is hampered by the home technology.



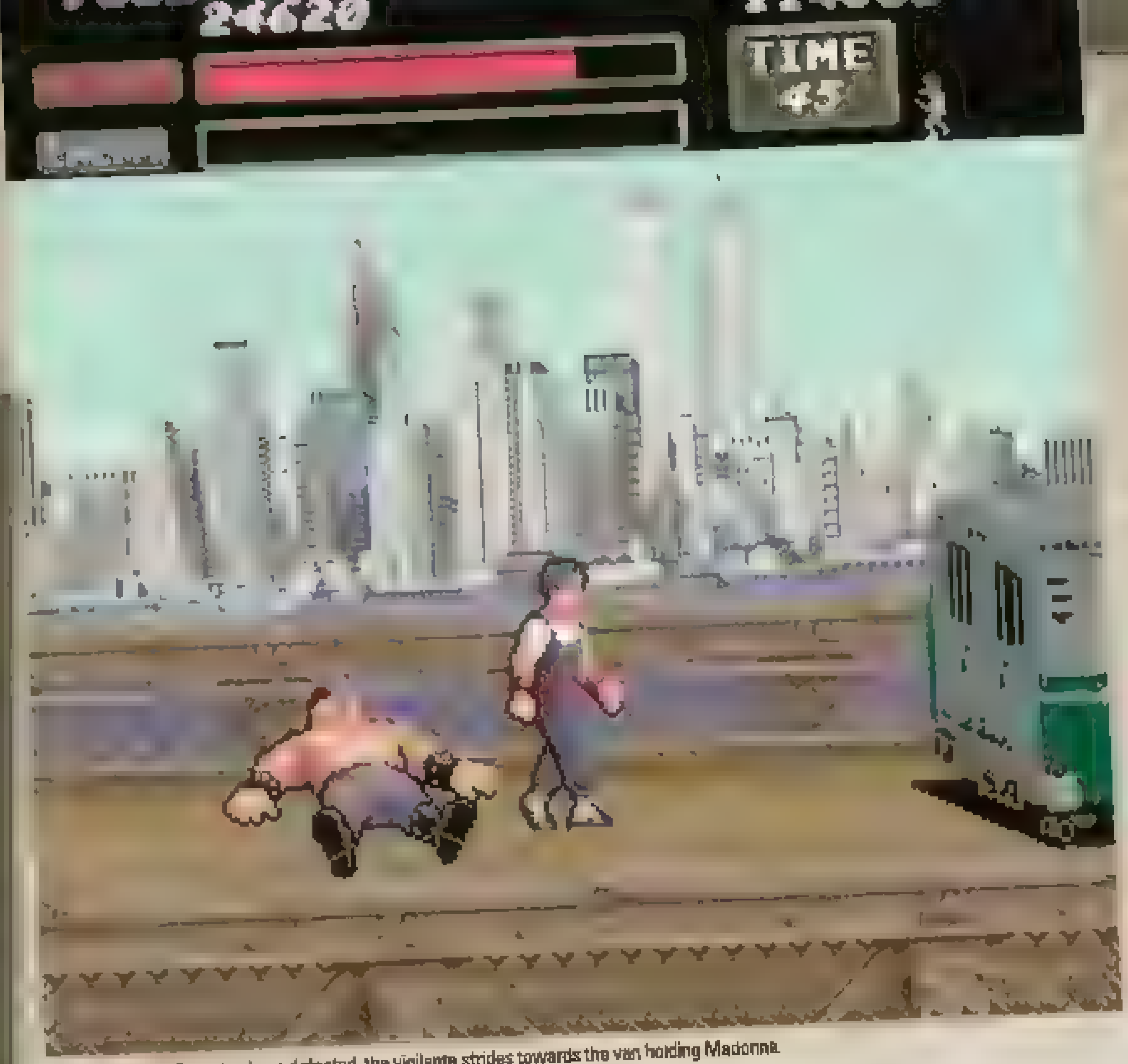
NES

■ Converted by Korean developer Clover in 1990, it's unclear if this is an official port or not. It's not worth investigating, as poor graphics combine with a vertical difficulty curve to create something that isn't much fun.



PC ENGINE

■ The PC Engine delivers the premier port of an arcade game with practically identical graphics and sound. And unlike its fellow console port, the character and boss names remain the same.



» [Arcade] The Brooklyn boss defeated, the vigilante strides towards the van holding Madonna.

Q&A: DAMIAN SCATTERGOOD

We chat to one of the team at Emerald Software, responsible for the US Gold conversions of Vigilante

[illegible] Vigilante?

Only when we started to look at it. We spent a lot of time in the arcades playing games to see what was coming out. It is actually a great arcade game, although the story is funny. It is quick, has multiple levels and impressive graphics – large sprites too, so it looks great.

[illegible]

We worked for US Gold at the time, so they licensed the development to us. We did other games such as Moonwalker and The Running Man, so we did a few movie licences, too. I was Mr Z80, so any machine that had that chip I worked on. I had a development environment that enabled me to work on the Spectrum and Amstrad at the same time. Mark Cushen was the graphic artist that worked with me on nearly all my Z80 games.

[illegible]

Really tough. Vigilante has huge graphics so we had to come up with some pretty smart ways of compressing the graphics. So, for example, if you look at the bad guys, they all share the same trousers, whereas in the arcade version they had different trousers. Doing this we save the top and bottom halves of each character separately which saves 50 per cent of graphic space. I also rewrote my sprite engine for Vigilante as it had a lot of moving characters. It could handle up to 48 moving objects on the screen at any one time without slowing down and was pretty impressive at the time.

[illegible]

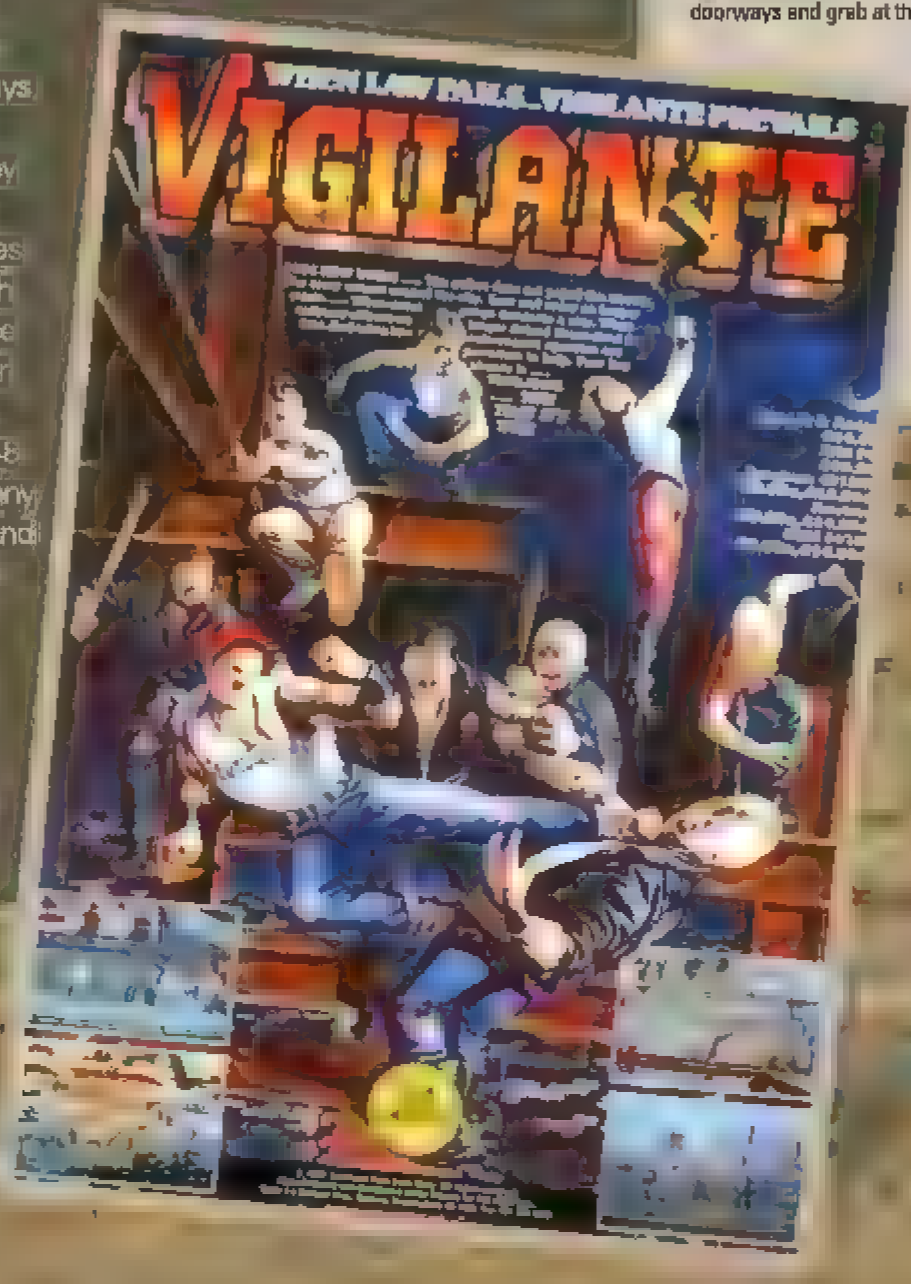
We actually managed to get all the levels in by reducing some of the backgrounds and animations so it wasn't as complex, but kept the general gameplay the same. It wasn't as smooth as I would have liked, but it was fast – I was always a believer that if a game played quickly then you had the playability.

[illegible]

Getting colour in wasn't easy, so we offered both. This worked well and you could even turn it on or off in-game. On some machines it looked really great and I kept it for future games as it was a great idea to add for players.

[illegible]

I think it was one of my better games. It's fast and playable and went down well. It wasn't perfect – I would have liked the animation to have been smoother – but it was quick. It reached the top ten charts at number three, so I was delighted, and then it re-entered the charts again when it was re-released on a budget label a few years later.



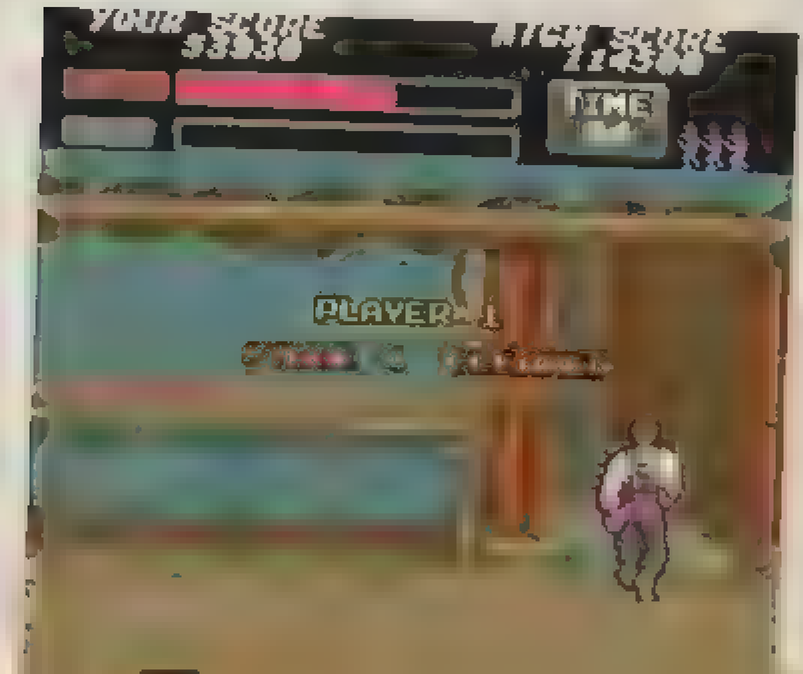
» [Arcade] Enemies emerge from doorways and grab at the vigilante.

▶ the action scrolls from left to right on one single plane, members of the skinhead gang accosting him from both sides. Madonna has been bundled into a grey van, presumably an ex-prison service vehicle given the iron bar window in the rear door, and at the end of each stage a local boss awaits the vigilante, guarding the vehicle and its beautiful captive. Defeat the boss and the van speeds off, Madonna's arms trailing from within, tantalisingly close to her beloved boyfriend. Despite most of the enemy 'skinheads' actually boasting a very full head of hair, there are many dangerous opponents right from the start. The common punk (sometimes dubbed 'strangler') reaches out his arms, seeking to hug the vigilante to death in an identical fashion seen in Kung Fu Master. While these take one punch or quick kick to dispose of, and are relatively harmless in isolation, it's not long before armed enemies arrive and things start to get a little bit trickier.

There are four different types of armed gang members, and these all appear early on in Vigilante. Sporting knives, crowbars, chains and guns, it's surprisingly the latter that poses the least threat as they normally appear solitarily, while the others frequently gang up on the player from both sides. In addition, there is

> "Vigilante has some huge graphics so we had to come up with some pretty smart ways of compressing the graphics"
>
> Damian Scattergood

an upgraded unarmed punk complete with red mohawk that specialises in pugilism and, like his tooled-up buddies, takes several hits to down. And on the third stage, Hell's Angels fly across the screen on motorbikes, although these can be satisfyingly knocked off their rides with one solo jump kick. But have no fear! To help the vigilante, carelessly-strewn nunchaku often lay within each level, and picking these up makes tackling the skinheads a much easier prospect thanks to their range and damage. However, take a hit from one of the myriad of baddies and the nunchaku disappear, leaving the vigilante relying on his feet and fists once more. Points are scored for each enemy despatched, and this varies according to the method used. For example, the common punks will yield 200 points if punched or flying kicked, with half of that scored for a regular kick or nunchaku. The tougher opponents give 400/200 points with bosses rewarding the player with a rather stingy 500 points, except for the final one who offers up 1,000 points ▶



» [Arcade] Upon completing stage four, it's a short elevator ride up to the final level

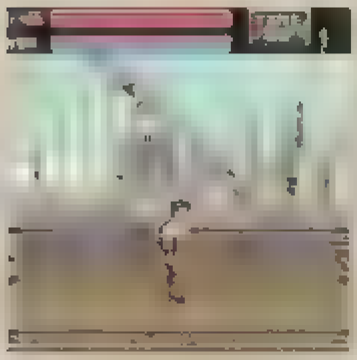
STAGE BY STAGE

STAGE 1
MEAN STREETS

■ The vigilante starts his campaign on the dangerous back alleys. In front of music stores, ice cream parlours and grimy saloons he is confronted by swathes of gang members out to end his mission before it has barely begun

STAGE 2
JUNKYARD SHOWDOWN

■ Next it's on to the gang's base itself, a derelict junkyard. Punks armed with crowbars jump down from the piles of rusted vehicles while huge columns of tyres lurk in the foreground, all shrouded by a beautiful orange sky



STAGE 3
BRIDGE OF DRAGONS

■ The van holding Madonna once more escapes the hero's clutches, and disappears across the Brooklyn Bridge. With NYC in the background, he's once more accosted by a range of thugs before reaching Madonna.

STAGE 4
BACKSTREETS OF FIRE

■ It's back to the streets again for stage four, this time an even more rundown part of town as the vigilante charges towards the final enemy hideout. The design is similar to level one, and finishes with a dynamite-throwing boss and an elevator ride up to stage five

STAGE 5
UNDER CONSTRUCTION

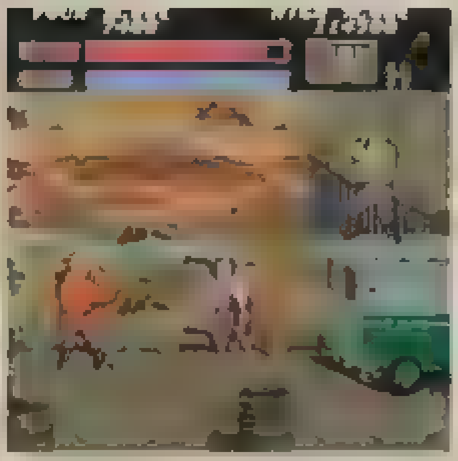
■ The final level takes place within a high-rise construction yard. Gang members clutch onto the girders below, grabbing at the player as others attack from left and right. Eventually, a gap in the floor appears, and on the other side stands the final boss. Time for a showdown

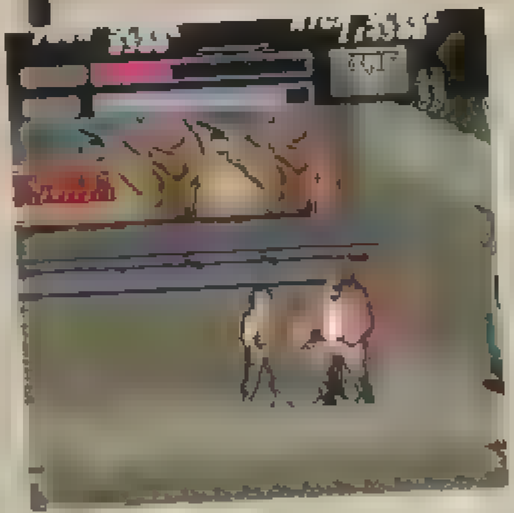
Boss Rush

STAGE ONE: AXE

■ As broad as he is tall, this hirsute boss sports black boots and a crimson jacket, vaguely resembling a punk rock version of the Eighties wrestler Giant Haystacks.

How To Beat: He likes to grab you and punch, so best avoid getting too close. A mixture of standard and jump kicks should do the trick





STAGE TWO: TOUGH BROTHERS

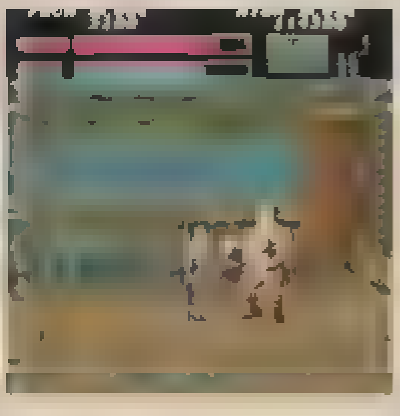
■ These two acrobatic bosses are tricky to defeat. Spiralling on and off their van, they combine jump kicks against you and often land on top of you, causing even more damage

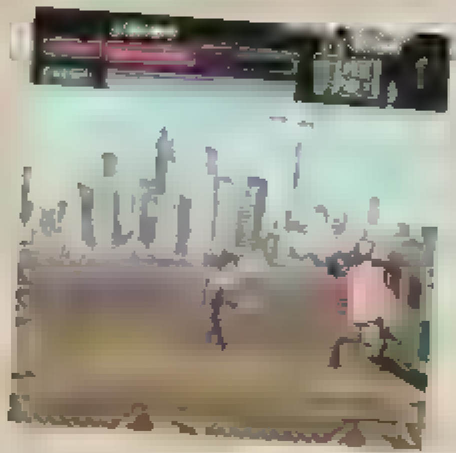
How To Beat: Taking a position just to the left of the van, duck to avoid their jumps and use the crouch kick to inflict damage

STAGE THREE: SPIKE

■ This guy wields a spiked ball that inflicts major damage. Hit him enough and he ditches it, but he is just as dangerous with his fists.

How To Beat: Try to pin him against the van and pepper him with kicks while avoiding that lethal steel ball.





STAGE FOUR: SKIN HEAD

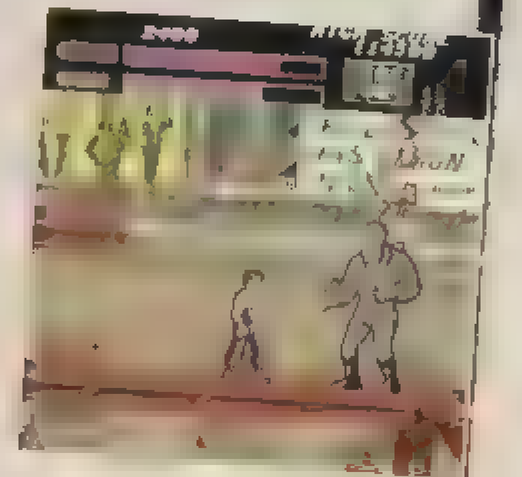
■ This swine begins on the platform above, chucking dynamite down at our hero. After taking a few blows, he jumps down for some old-fashioned fisticuffs

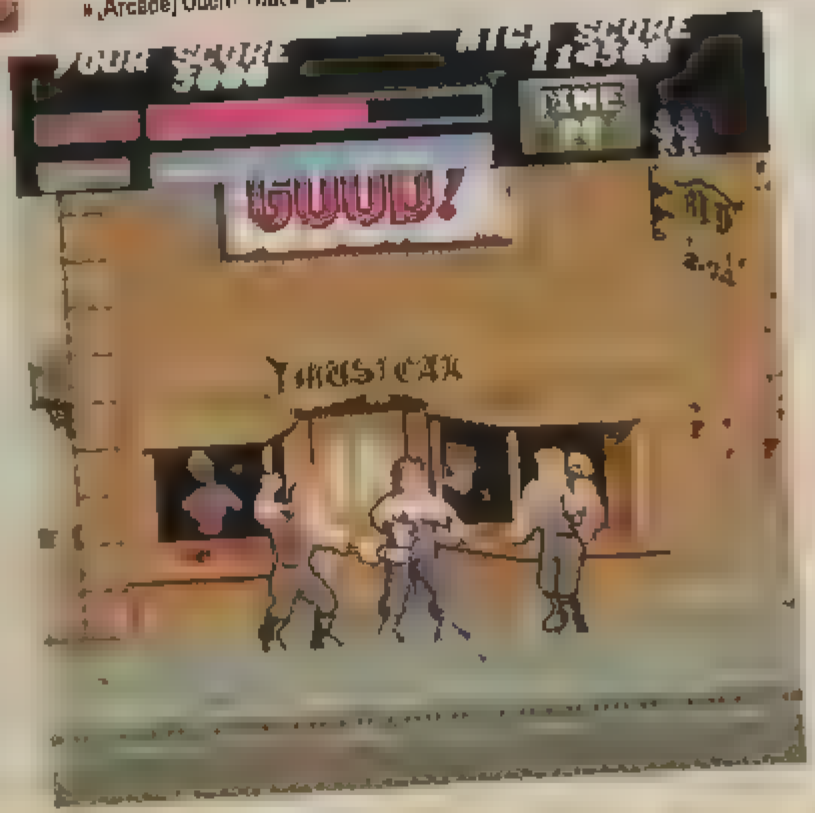
How To Beat: The dynamite can be avoided or disposed of using the crouch kick attack while jump-punching the skinhead to bring him off his ledge.

STAGE FIVE: BIG BOSS

■ This huge ugly beast is the boss of the skinheads. Standing at almost twice the vigilante's height, he's incredibly tough to defeat.

How To Beat: The Big Boss' attacks are almost impossible to avoid, and his health regenerates. Pinning sometimes works, combined with the crouch kick, but it's largely a matter of luck and perseverance.

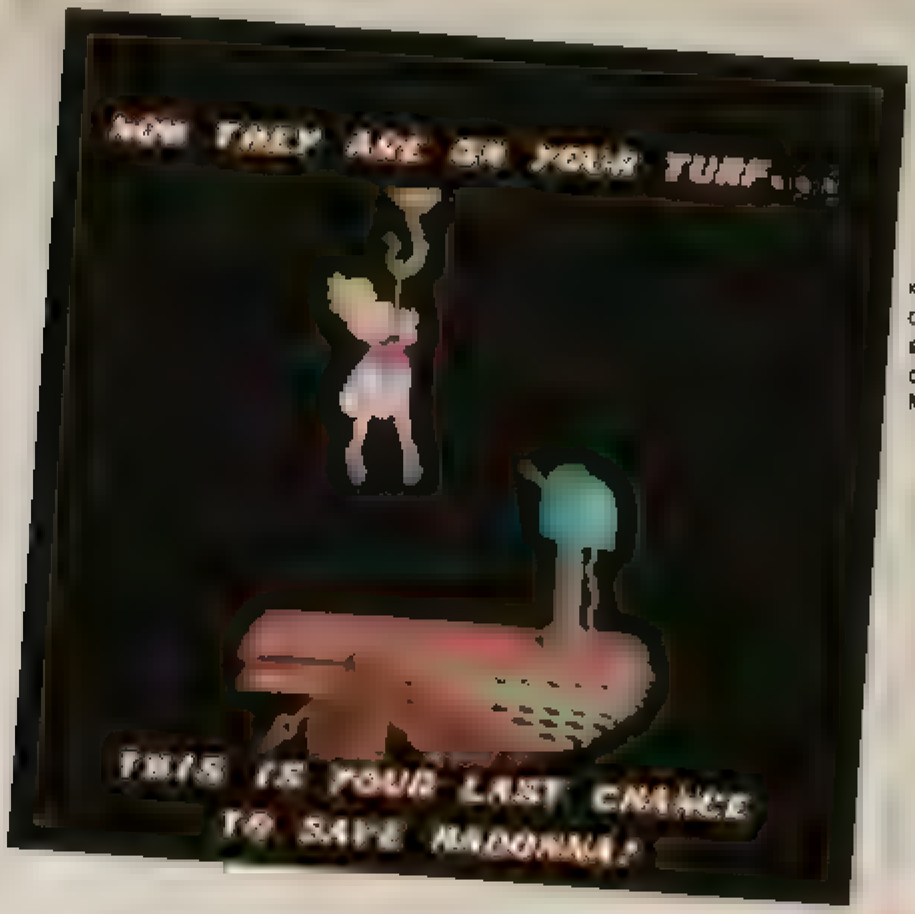




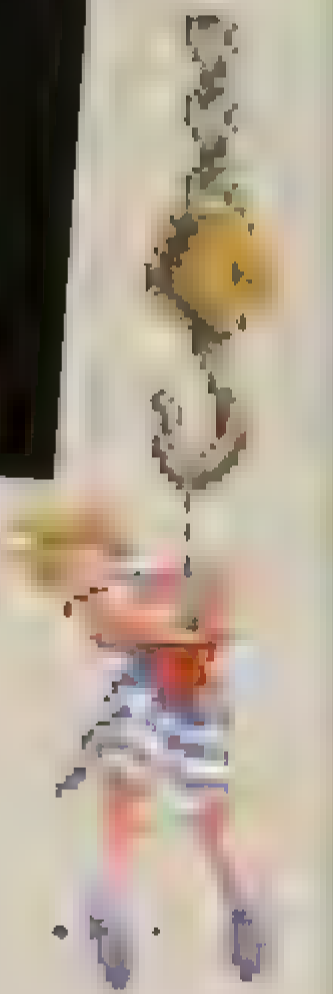
» [Arcade] Ouch! That's gotta hurt.

▶ Unlike most of its peers, Vigilante is a strictly single-player game, without even the option of alternate play. This is reflected in its economical display which shows the player's score and high score, followed by a red energy bar, time remaining (99 seconds per level) and lives remaining. The only alteration to this is when the player reaches an end-of-level boss as his energy bar appears below the vigilante's. The cabinet, upright only, contains a standard horizontal display with an eight-way joystick and two fire buttons one for kick, one for punch. There are strictly no frills here – it's all about disposing of those who stand in your way and little else.

Released in its native Japan by Irem, the coin-op producer penned a deal with Data East for the North American version of Vigilante. While it may not have compared favourably with other games in the brawler genre, the name alone was enough to sell Vigilante to an audience enraptured by movies such as the Death Wish series and Vigilante (1982), a Robert Forster-starring revenge flick, unrelated to the arcade game, but sharing its general theme and setting of downtown New York. For the home computer conversions, US Gold continued its relationship with Irem, following on from its ports of Kung-Fu Master. Irish developer Emerald Software successfully bid to produce these, with fluctuating results on the Amiga, Atari ST, Spectrum, Amstrad and Commodore 64 conversions. In an odd and crowded advert, the publisher set the game in the near future of 1994, and cheekily swiped the famous tagline of 'This Time It's War' from the 1987 movie Aliens before proclaiming 'When Law Fails ...Vigilante Prevails'. It's nothing on the iconic original arcade advert from Irem, which places the game in a contemporary 1988 setting and features


NOW THEY ARE ON YOUR TURF...
THIS IS YOUR LAST CHANCE TO SAVE MADONNA!

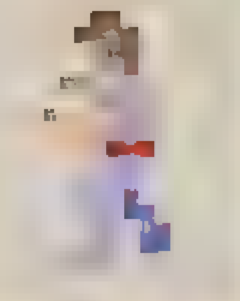
» [Arcade] Back on the streets and it's your last chance to rescue Madonna



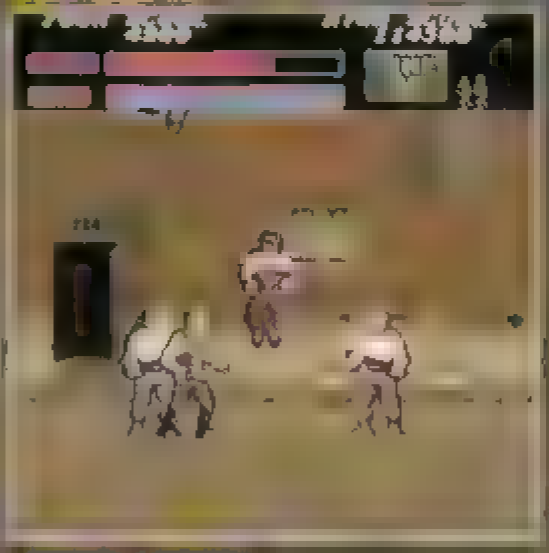
"It wasn't perfect... but it was quick"
Damian Scattergood

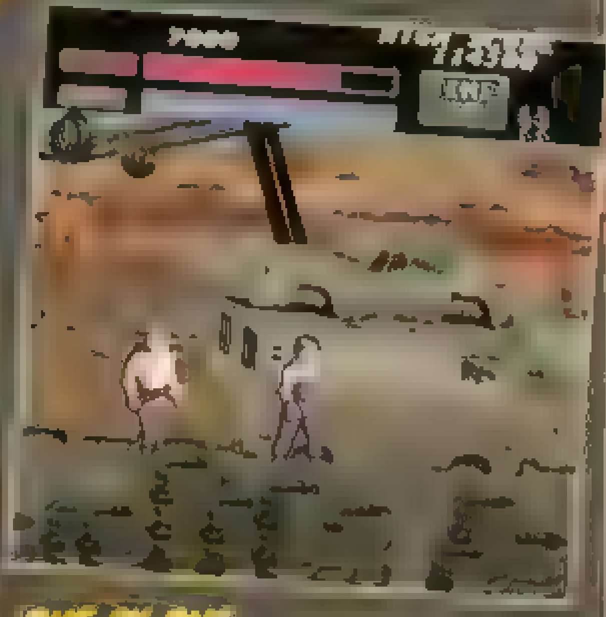
the powerful close-up facial image of the wide-eyed Madonna, a skinhead's fist clenching a knife to her left cheek. And to round off the home ports, Vigilante also saw action on the TurboGrafx 16/PC Engine and Sega Master System. The former is an excellent and accurate conversion, while the latter disappoints and includes a number of changes to the names of the characters, most notably the captured girlfriend who becomes Maria, and the enemy gang, now dubbed the more suitable, if less threatening, moniker of The Rogues.

Today, Vigilante visually appears an attractive proposition, and its suitably foreboding urban backgrounds are portrayed in a charming pixelated retro fashion, with the second stage, set inside the gang's junkyard as the sun pulses weakly, particularly pleasing. Lacking in diversity is not always a drawback; the vigilante, a martial arts expert with only one weapon pick up and just four attacking moves – kick, punch, crouched and jumping kick – is nonetheless fun to guide through the five short areas of a fractured New York City. It's time to take to the streets and dispense justice – all for the love of a woman called Madonna. ★



PLAYING TIPS



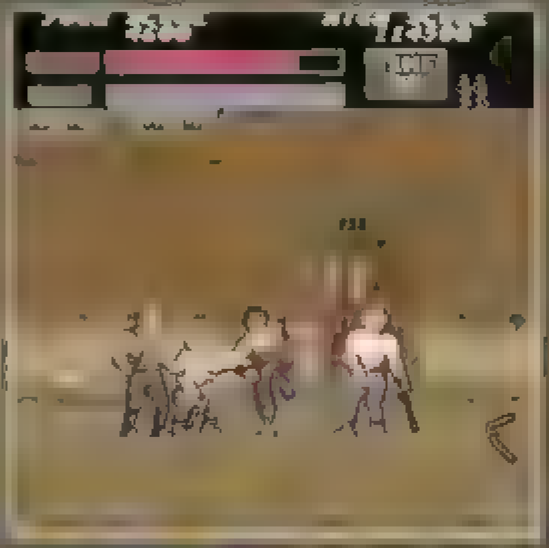


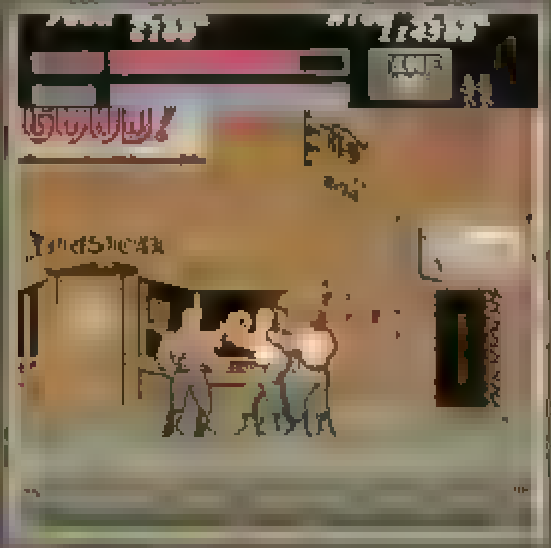
JUMP, JUMP!

■ The vigilante's jump kick does significant damage, and is also invaluable against the five boss fights. It must be timed right, however, as the hero is left temporarily off-balance and exposed upon landing.

ONE BY ONE

■ It pays not to rush in *Vigilante*. Enemies converge from the left and right, and while a standard punk on his own is not a problem, combine him with weapon-toting thugs and you'll soon be in a whole world of pain.



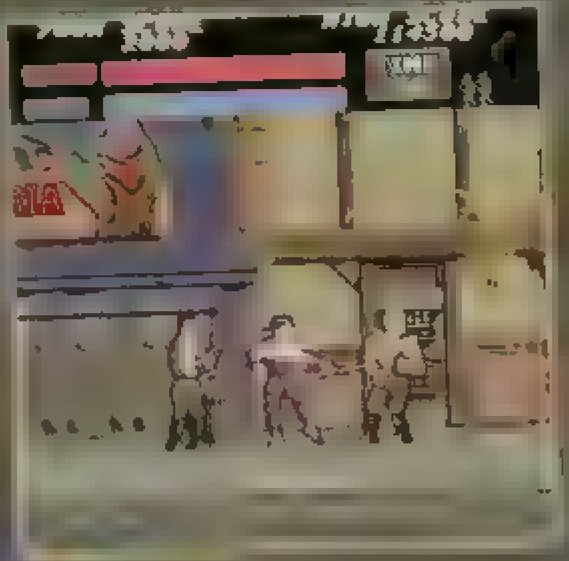


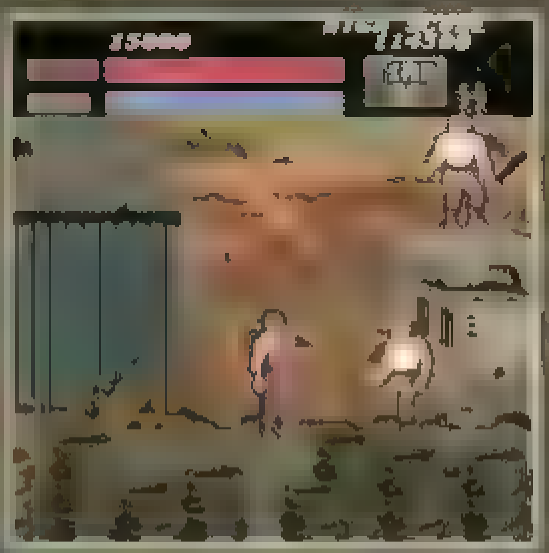
PUNCH/KICK

■ It's easy to forget the vigilante's punch given how his kick is easier to use and, naturally, has a further reach. You'll be wise to use every tool in your arsenal, though.

WIGGLE IT

■ It's a devastating combo: a thug grabs the hero while a goon with a blade closes in. You need to wiggle left-right quickly in order to escape their clutches and resume the fight.





NUNCHAKU

■ There is only one weapon in *Vigilante*, but it's a good one. While the way that the hero wields the nunchaku may not look cool, it's effective, especially against the many armed opponents.

ABOVE AND BELOW

■ While *Vigilante* plays out on one horizontal plane, that doesn't mean the danger only comes from the left and right. In the junkyard, thugs stand on cars and attack from above.

THE MAKING OF

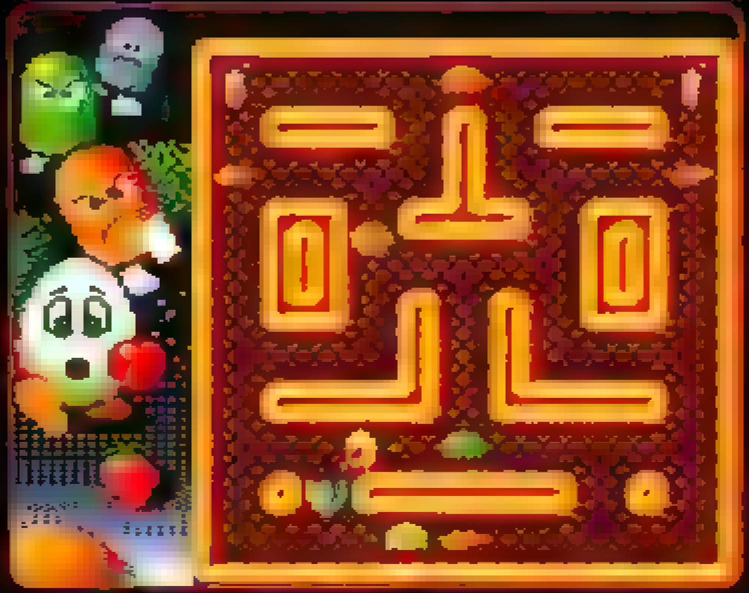
FAST FOOD!

The Oliver twins were synonymous with speedy development during the Eighties, but they outdid themselves in 1989 by producing a Pac-Man tribute in a weekend. Retro Gamer learns how they made Fast Food in lightning-fast time

Words by Rory Milne

It's easy to forget just how influential Pac-Man was during the Eighties. Philip and Andrew Oliver cite Namco's classic as the game that got them into games development, and as Philip explains, their earliest projects were attempts to bring Pac-Man home. "We had a ZX-81 briefly – it was our older brother's – and even on that it was: 'Oh, I wonder if we can do a maze game like Pac-Man?'" Philip says. "But we worked out quickly that we couldn't! Then we got a Dragon 32, and some of our earlier efforts were Pac-Man copies, but they were really rubbish because we were just learning the art of being games designers."

But several years and many hit games later, the twins made a Friday afternoon decision to revisit the idea. "We just said: 'Is there a decent Pac-Man game on the Amstrad and Spectrum?'" remembers Philip. "And we were like: 'Well not really.' We were in the middle of making Grand Prix Simulator 2, and we always had this work ethic where we had to finish what we started – regardless, because anything that you fuck around with is just a waste. So we said: 'It's Friday afternoon, and as long as we're back on GPS 2 by Monday then that's okay. So we pretty much wrote Fast Food in that weekend."



» [Amstrad CPC] Instead of Power Pills, Dizzy turns the tables on his foes by arming himself with a shield.

But far from producing a clone, the twins opted to swap out Pac-Man's healthy cuisine for junk food that was always on the run. "It was milkshakes and burgers and all that kind of stuff!" Philip enthuses. "The reason we got that idea was because in Pac-Man the ultimate thing was to eat fruit, but we said: 'Give me a burger any day over a bunch of grapes!' We obviously were going to have monsters running around, but wouldn't it be more interesting if the stuff that you were trying to collect was trying to get away! So we made it food, so it was obvious that you were trying to catch and eat it."

True to their word, the Olivers completed Fast Food over the course of the weekend, although they did find time before starting work on Monday to commission music for their side-project. "On Monday morning we contacted David Whittaker," remembers Philip. "We said: 'Send us another piece of music, this time it's a Pac-Man maze-type game. It probably shouldn't

IN THE KNOW

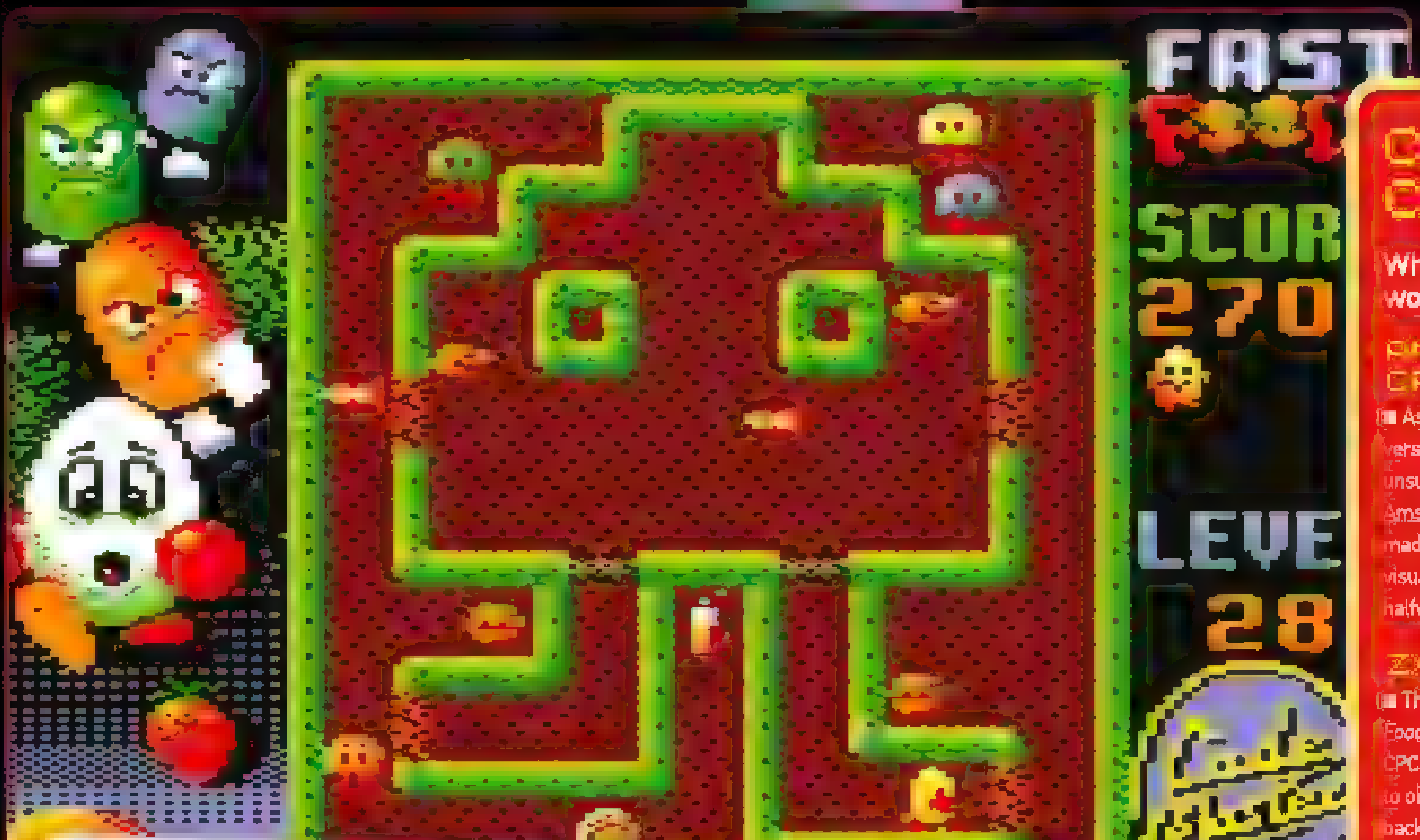
» **PUBLISHER:**
CODEMASTERS

» **DEVELOPER:**
PHILIP AND
ANDREW OLIVER

» **RELEASED:**
1989

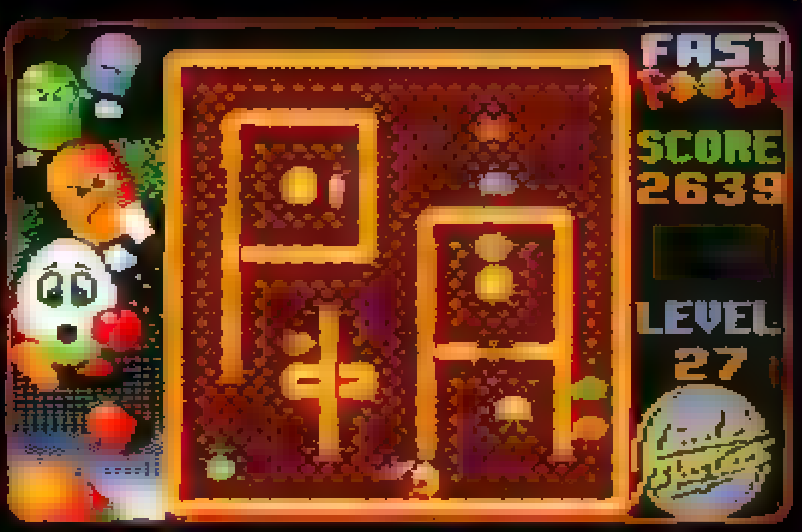
» **PLATFORM:**
AMSTRAD, VARIOUS

» **GENRE:**
MAZE GAME



» [Amstrad CPC] Dizzy can smash through dead sections of hedges in order to get access to food.

» The Olivers designed a Fast Food follow-up called Kwik Snax in 1990.



» [Amstrad CPC] Power-ups like the speed-enhancing magic boots become essential as you make progress in Fast Food.

sound too much like Pac-Man, though!' So he sent that through."

The following day saw the brothers visiting their publisher to present their weekend's work, which prompted discussions of a profitable reworking of their game. "We showed Codemasters on the Tuesday," Philip notes. "Bruce Everiss – its marketing guy – said: 'Oh, there's that restaurant chain called Happy Eater. You could call this The Happy Eater game and make a deal with them!' We were like: 'Yeah, okay. That sounds interesting.' Happy Eater said yes at first, but a couple of weeks later it said: 'No. We're not going to do it.'"

Having missed one opportunity, the Olivers looked to another by making Fast Food the latest entry in their Dizzy series and commissioning visuals from series regular Neil Adamson. "We called Neil and said: 'Can you just swap out all the graphics for us?'" Philip says. "He sent them back on a cassette, and we cut and paste them over the top of ours. That sounds so easy, and on Windows it is, but it was a lot fucking harder doing it on an 8-bit system!"

With its Dizzy graphics in place, Fast Food was all but ready for publication, although the game subsequently underwent a name change. "It was always Fast Food Dizzy – that was the title in the game originally," Philip sighs. "But then Codemasters dropped the word Dizzy from the packaging. It said: 'There's a fucking great big picture of Dizzy underneath it, so you don't really need the word Dizzy!' I actually think that the Dizzy logo probably should have been left there, but it wasn't."

But when reviewing on Fast Food today with the added benefit of hindsight, Philip focuses on the positives. He's pleased with how well Fast Food sold and proud to have created it with his brother Andrew in just two days. "Everybody knew that the Amstrad and Spectrum were capable of Pac-Man clones," Philip acknowledges, "but we didn't mind making a copy, and doing a fairly decent job of it! So we're proud of Fast Food bearing in mind how long it took. That wasn't bad for a weekend." ★

CONVERSION CAPERS

Which versions of Fast Food are worthy of a Michelin Star?

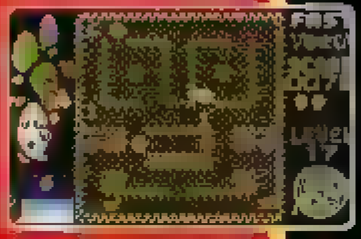
AMSTRAD CPC

■ As one of the original versions of the game it's unsurprising that the Amstrad *Fast Food* is tailor-made for the CPC. Its lively tunes and colourful visuals make you smile, but the difficulty spike halfway through the game may reduce you to tears.

ZX SPECTRUM

■ The Oliver's Spectrum *Fast Food* is less colourful than its CPC counterpart, which leads to objects getting lost in the backgrounds, but its visuals are slightly more detailed. When loaded on a 128K model it sounds exactly like the Amstrad version.

C64



■ The best sounding 8-bit version of *Fast Food*, the Commodore port also boasts much nicer animated intermissions. But many of its levels look muddy, some are rendered in 50 shades of brown, and its enemy AI is much more aggressive than the originals.

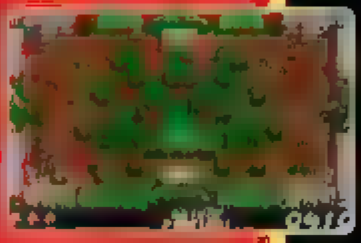
AMIGA

■ A complete redesign, the Amiga version – as with the other 16-bit ports – looks and sounds like a completely different game to the originals. The gameplay of the 8-bit games is retained, however, with just the mazes being given a total overhaul.

ATARI ST

■ It doesn't sound as good as its Commodore rival, but the ST and Amiga ports are otherwise identical. Like the other 16-bit *Fast Food* ports, the mazes in the Atari iteration have landscape features that you can disappear behind, which can get confusing.

PC



■ The PC version's MIDI tunes are slightly grating, but its visuals are on par with the Amiga and ST ports. Like those versions, the PC *Fast Food*'s monsters are tougher than those in the 8-bit originals, but not to the point that they ruin the game.

MIXING

RISE OF THE

Ever loved a game so much that you wish you could go back and experience it for the first time all over again? Well, now you can… endlessly. Retro Gamer catches up with the passionate community which concocts mods that make classic games different every time you play

Words by Luke Albigés

» Ocarina Of Time is one of the longer randomisers out there, especially if the seed sees fit to place essential items behind the longer quest chains

On a fateful stormy night, young hero Link follows a dream-sent message from a captured princess to a nearby stronghold. Upon finding the main entrance barred, he cunningly sneaks in via a hidden passage under a convenient shrub, only to find his uncle, wounded and scornful of Link's disobeying of his instructions to stay at home. Still, he sees fit to hand over something he feels Link will need to overcome the challenges in the well-guarded rooms that follow… and the hero of Hyrule holds aloft a single Rupee. Huh. We've heard the same story retold a hundred different ways, the classic version seeing the goodly uncle surrendering his sword and shield unto the hero, but with variants that see him instead gifting everything from fancy footwear to flippers and fungi. Welcome to the world of the randomiser. Leave everything you know about the standard progression paths through classic games at the door, because things are about to get… well, random.

It's been a quarter of a century since the release of A Link To The Past and in that time, the most dedicated players have come to develop a more in-depth knowledge of the game's underlying systems than some of the people that actually worked on it. The linear item-based progression of typical Zelda games means that most standard runs play out along exactly the same tracks and while that's no less impressive to watch (or less popular among speedrunners – 17 of the top 20 times for the standard A Link To The Past Any% category on speedrun.com were set in 2018), the community had ideas on how to turn this all-time classic on its head and in the process, create something that was unique to play every single time and, perhaps more importantly to its success, a genuinely fascinating spectator sport at the same time. Through the sacrilegious act of messing with Nintendo's perfect design, a modern-day classic was born.

"I've been involved with A Link To The Past Randomiser since the very first version was released," explains speedrunner-turned-mod-creator ChristosOwen. "The original author, Dessyreqt, released a very basic version which only randomised chests and nothing else (no heart pieces, NPCs,

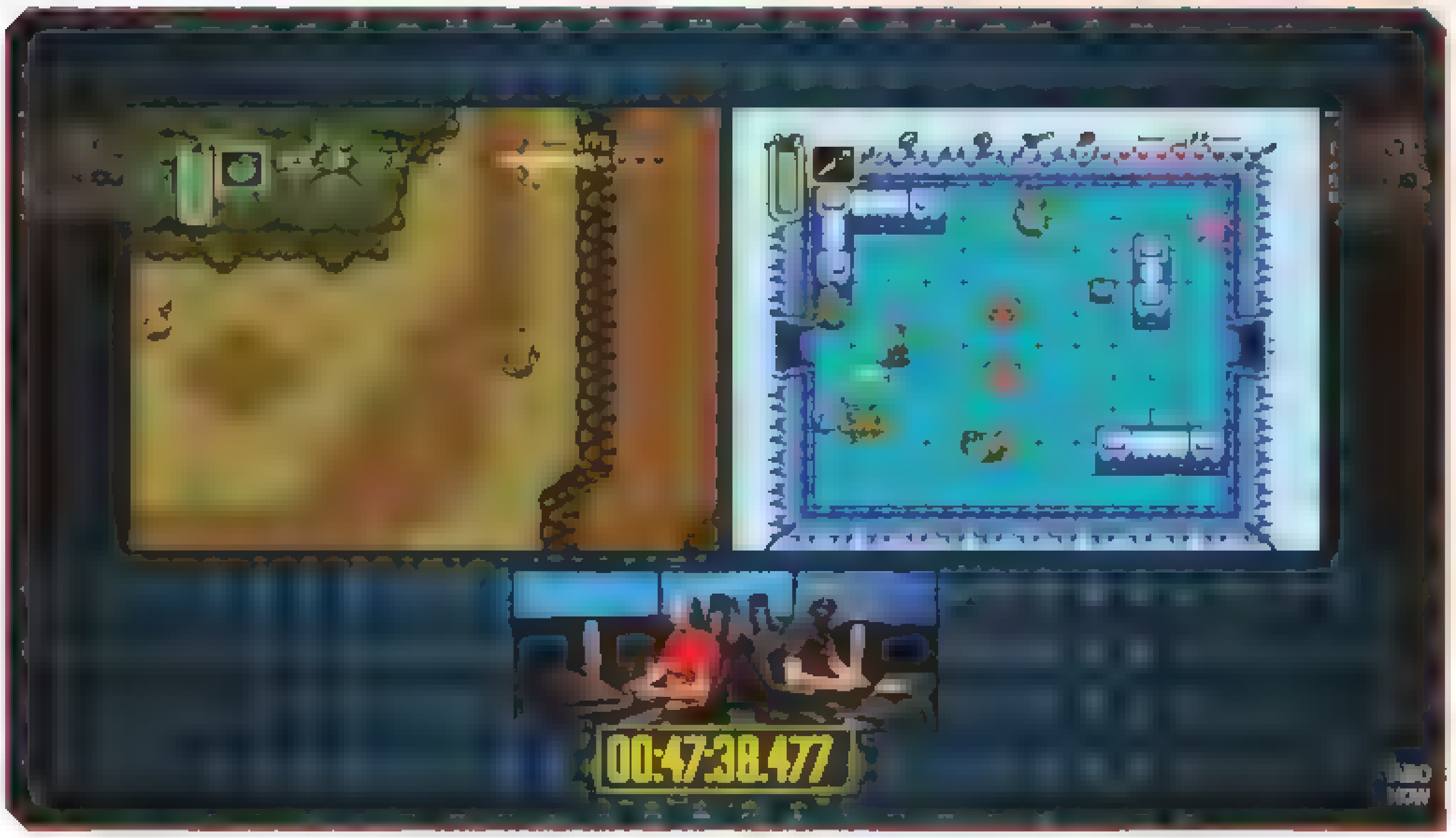
CODE
LUKE
DELETE FILE

» SNES Don't expect to get every item every time, but as many are superfluous, you'll soon learn to make do with what you have and need

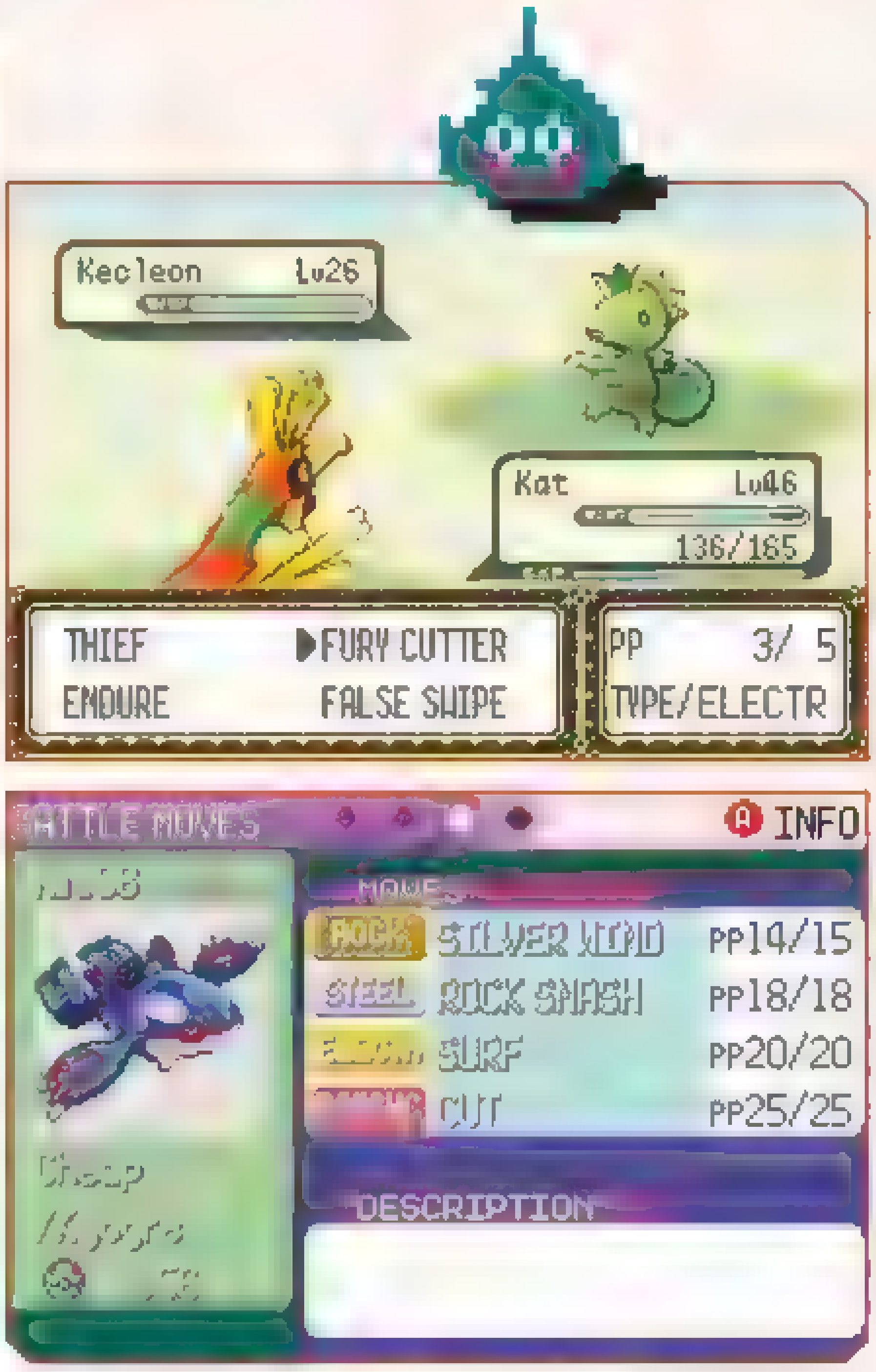
> "I had amassed a vast knowledge of the intricacies of the game, its mechanics and its glitches"
>
> ChristosOwen

IT UP

ROM RANDOMISER



» You don't have to look far to find a stream of great players racing randomisers, nor to find the resources to get involved yourself if you fancy it.



» [GBA] Yes, all those moves are the wrong type. No, their base stats aren't the same as usual either. And let's not even get started on the fact that Kyogre's ability is Speed Boost.

boss heart containers, freestanding items, etc) which he had been working on alone – was immediately hooked. The speedrunning community, which had been part of since 2011, began racing it for fun frequently (multiple times a day). Perhaps the spiritual successor to the randomiser were puzzle races, creative challenge goals within the original game which often required glitch knowledge and some very creative solutions. I absolutely loved these puzzle races and had created many myself." These challenges, set and completed in the base game, involved defeating certain bosses with some items required and others outlawed, effectively forcing cunning use of glitches and routing the likes of which we now see thrown up by many randomiser seeds.

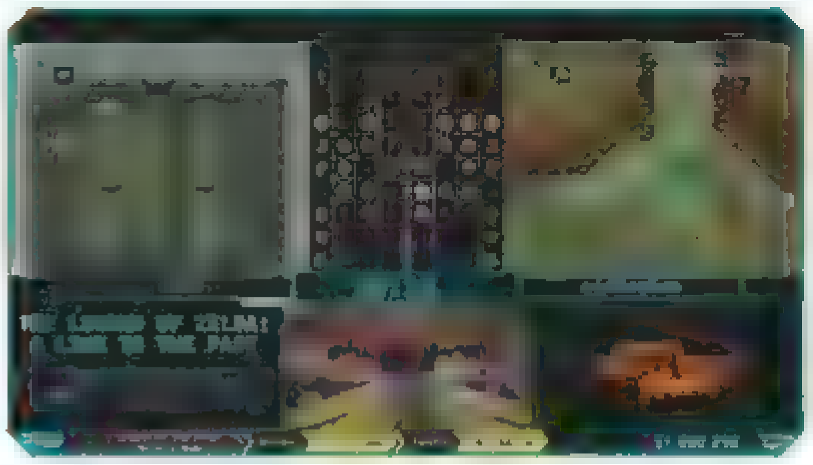
"As one of the fastest speedrunners of the time and having created many puzzle races, I had amassed a vast knowledge of the intricacies of the game, its mechanics and its glitches. With this passion, I was well positioned to help work on the randomiser and could see how much further the project could be developed," Chris continues. "Every location in the game has a certain set of item requirements which are needed before Link can get there. However the game is structured in such a way that many regions and locations can be reached with different combinations of items. My initial contributions were to fix and optimise this item logic. The effect this had was improving the way the items are randomised within the game world and ensuring every time someone played the randomiser, it could be beaten."

This part deserves further clarification, not least since the term 'random' suggests a lot more is left to chance than actually is. Chris and his fellow creators managed to develop a logic routine that doles out key items in such a manner that progress is always possible. If not obviously. Trickier seeds might make you use a dash bonk or bomb jump to clear a gap designed to be traversed using the Hookshot, for instance, and A Link To The Past's stalwartly linear progression is seen in a new light here – at times, it almost feels like the game was actually designed to be approached with such a variety of options at your disposal, so good is the fit of obtaining key items out of sequence.

"Most regions in the game have multiple item sets which can allow Link to reach them. This means things are very nonlinear. Each time you play, you will get a very different path through the game with a different set of items. It keeps things fresh and fun!" Chris' words mirror our own experiences, both from play and from watching the best players race the same random seeds – a fascinating ▶

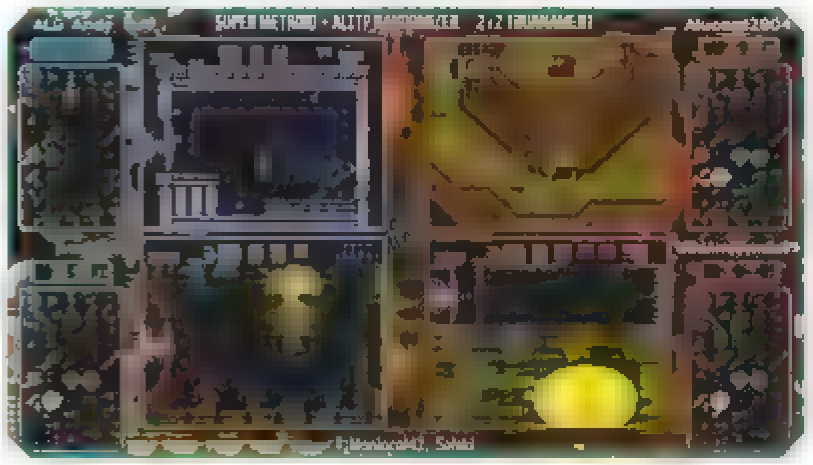
ONES TO WATCH

New to randomisers? Check out these runs to see why it's something you should get involved with



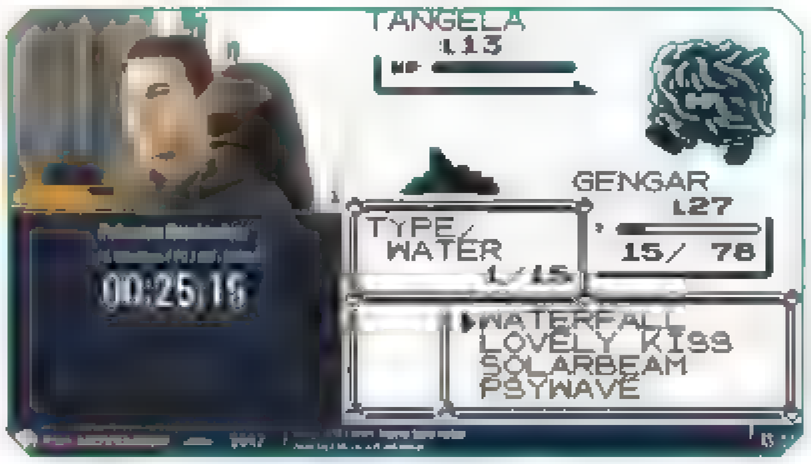
ALTTPR RACE, AGDQ 2018

■ Speedrunning expert Andy versus mod dev ChristosOwen was always going to be a titanic battle, and the creators and experts offering commentary from the couch make it both entertaining and informative whatever your level of randomiser experience. Oh, and it's a swordless run too, so expect to see some creative boss kills



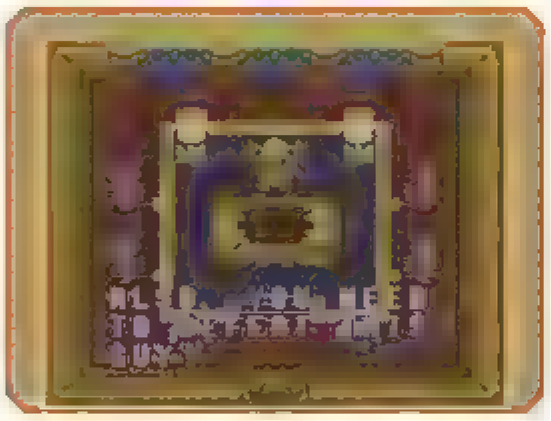
SMZ3 2V2 CO-OP TOURNAMENT 2018

■ As if randomising an entire game's worth of content wasn't enough to deal with, *SMZ3* fuses two SNES classics – *Super Metroid* and *A Link To The Past* – and shuffles key items between them for ultimate shenanigans. This event had runners playing the multigame randomiser in pairs and sharing info with their teammates, making the ridiculous task of clearing both games at once that much more manageable



POKÉMON RED/BLUE RANDOMISER, ESA NOVEMBER 2018

■ Certified *Pokemon* master 360Chrism takes on a remixed version of the original monster-catching classic with everything from starter Pokemon to movesets and overworld items rearranged. The wild level two Gengar is a nice get, sure, but we'll never forgive him for not taking Snorlax as his starter

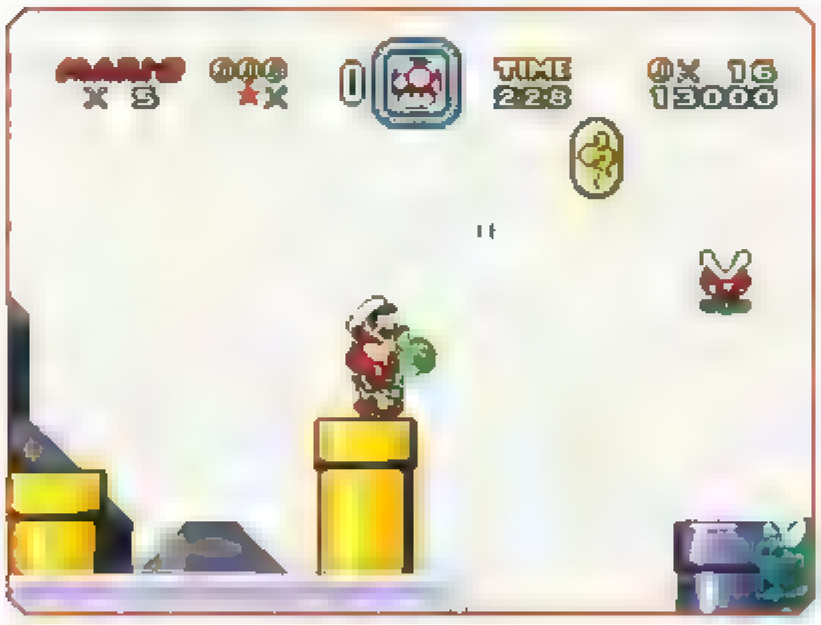


» [SNES] Some randomiser mods don't just change where you find key items.

▶ spectacle even if you barely understand what you're watching and a bona fide esport if you do. "In your first game, you might make your way to the Dark World by defeating Agahnim, getting into his castle with the Magic Cape, and then head over to the west Dark World crossing a broken bridge using the Flippers and Hookshot. The second game might require you to find the Hammer and a Power Glove and use a portal in the southern region of Hyrule. Your third game might require you to get the Titan's Mitts and use a portal near Kakariko Village! There is such a wide variety of items in the game. Getting them out of the intended order allows for some very creative things to be required or possible, which simply could not happen in the original game. For example, maybe you have to clear the opening Zelda rescue sequence without a sword only using Cane Of Somaria blocks to dispatch your enemies!"

A Link To The Past is far from the only game to receive the randomiser treatment – it gets our focus here on the dual-pronged basis of being the most high-profile mods of its kind and being the one that typically offers the best results. The Pokemon randomiser, for instance, offers so wide a spectrum of options that runs can die at any point. Go down the conservative route and only have your starter randomised and you can replace them quick enough if they're not pulling their weight, but go the whole hog and randomise everything – Pokemon types, evolutions, stats, move types and base damage – and things get a lot scarier, particularly when you're dealing with TMs being single-use items. This is not exclusively something that applies to older games, either – the Dark Souls games and their ilk are rife with such mods, and their options

shyleosia
SHY
HP
102
VS
HP
142
GRDO
HP
144
GLHF
WIZARD



» [SNES] Sure, there are randomisers for Mario games, but do we need them when there are almost unlimited curated stages thanks to Mario Maker?

ITEM
EQUIPMENT
DUNGEON ITEM

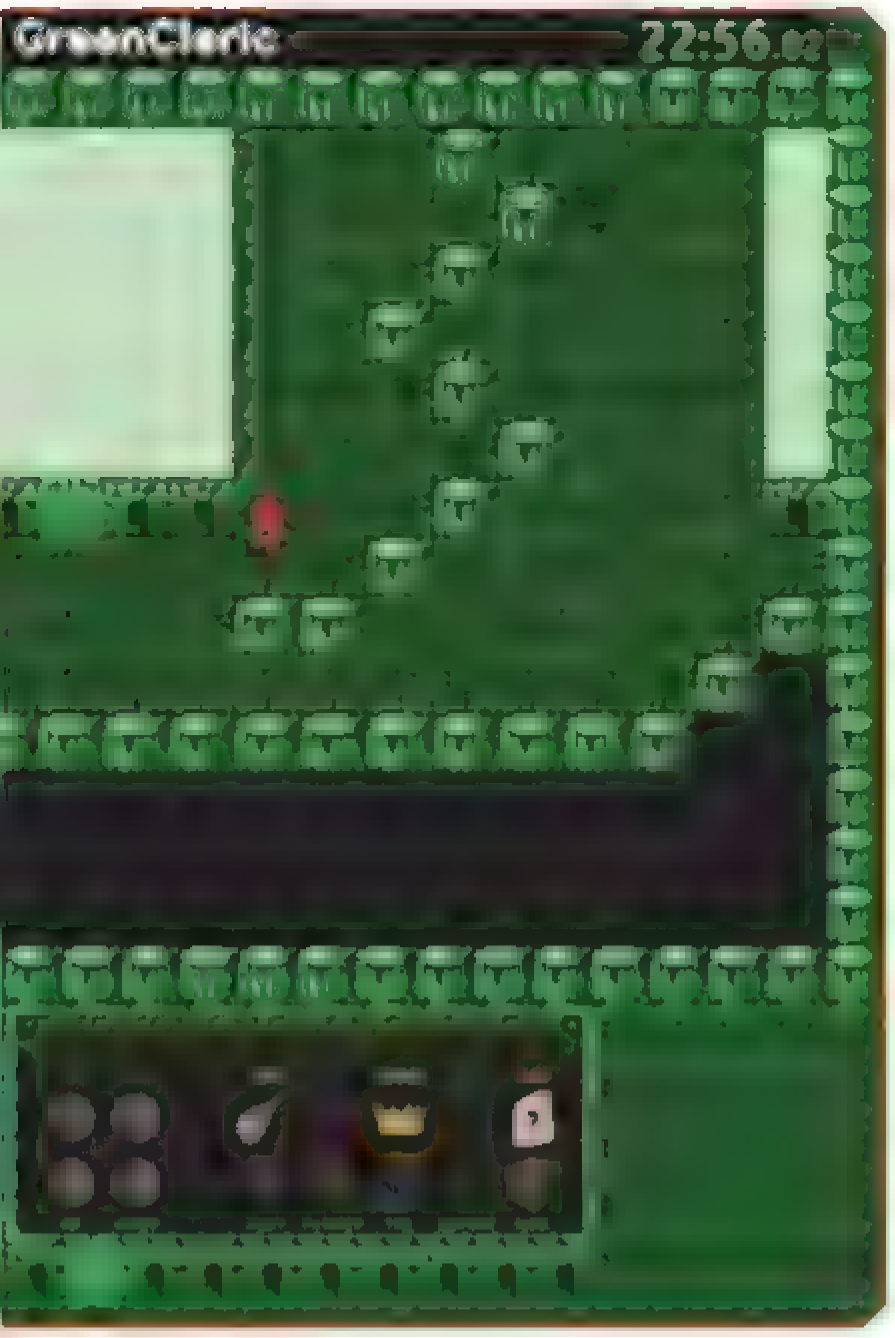
» [SNES] Sometimes you'll see a full sword upgrade, others you'll be lucky to get a sword at all. Best to have the backup boss plans on standby

are similarly plentiful. Some move basic enemies around, others shuffle all the item drops in the world while yet more replace all normal mobs with bosses for ultimate game-breaking nonsense, and many streamers make a point of taking on these hardcore extracurricular challenges to prove their mastery of the game. It's amazing to watch, especially if you think you've already seen any given game pushed to its limits. Spoiler alert: you almost certainly haven't.

"I am so passionate about ALTTP and its randomiser, but it has definitely grown much more popular than I had expected!" Chris enthuses. "We have a Discord community with almost 15,000 users, have had huge tournaments, some for substantial cash prizes, and races happen multiple times per day every day even now. It's simply so much fun to play that anyone can get involved!" Even when you think you've seen it all, you might happen upon a race where a key item is locked behind the Master Sword pedestal – ALTTP terminology again, sure, but logic that can be applied to any game or randomiser – and the goalposts move once again, shifting from express mode to accidental completionism as more and more requirements are thrown into the mix. To succeed in the world of the random, you need to have both a superb basic knowledge of the core game and a degree of adaptability that might allow you to deal with the unexpected challenges that fall in your path.

“It's simply so much fun to play that anyone can get involved”

ChristosOwen



Of course, you can't just play randomised versions of any game you like – players at the behest of the communities and creators in terms of the options available to them. In lieu of a randomiser option, though, you could always just work to self-imposed rules similar to those employed by the puzzle challenges Chris and others used to set one another in the core version of A Link To The Past before randomisers hit the big time. But this is a growing scene, and more games are getting mixed up all the time, so which will be next? "I would love to see a Majora's Mask randomiser," ChristosOwen posits. "I think the game offers massive potential for variance in where items can go and where players can choose to go searching at any given time. With the recent ▶

» Classic RPGs are ripe for randomisation, although seeds can be cruel. Pray for a decent start and you might just make it through

RANDOM ADVICE

Randomiser mod creator Veetorp shares his views on the new trend for messing with classic game design

What was your main contribution to the *ALTTPR* project, and what was the primary challenge you faced with it? What did the other creators involved bring to the project?

I took over the main development of the randomiser around version eight. I wrote and maintain the code for the website and the randomisation algorithm. A lot of the early challenge was finding a simple and quick way of patching binary files in the web browser. Then assuring that the randomisation was sufficiently random. ChristosOwen brought in huge amounts of knowledge about logic issues as well as organization to the team. KatDevsGames, Smallhacker, and Zarby89 brought assembly hacking skills, of which we would be lost without.

What is it about *A Link To The Past* specifically that makes it such a good fit for a randomiser?

ALTTP feels like it was just made for randomisation. There are 216 unique locations in the game with items, each of which usually has multiple ways to reach each of them. This really allows most of the items to appear in a lot of places so you end up having unique experiences nearly every time.

What are some other games that you feel share similar elements and that you would like to see get the randomiser treatment in the future?

There are so many games out there that I love and adore. Most of them have randomisers already. The communities around them are usually smaller than *A Link To The Past*, but *Zelda* is one of those games that holds a lot of nostalgia. I personally have taken on a NES randomiser of *Goonies 2*, as it was a childhood game I just couldn't get enough of.

Have you been surprised by the popularity of randomisers on Twitch and YouTube, or was this something you expected to see take off?

I had no idea it was going to be this popular. When I took on the project it was mostly so a few friends and I could play with new features. Then we had a small tournament of about 80 runners, then it was just everywhere.

How does it feel to be reinventing classic games to be enjoyed, experienced and watched in all-new ways?

It feels really cool. I get to learn how the greats made the games they did. Searching through and finding all the little secrets left behind in the code. Knowing that people are getting as much enjoyment playing and watching as I do creating new ways to play these classic games is awesome. It's astonishing that people have made this a whole new entertainment general.

What advice would you offer to people interested in getting involved with randomisers, both generally and for *ALTTPR* specifically?

There are masses of resources online to help you get started if you are looking to randomise a game. A few great communities of very helpful people that you can bounce ideas off of. If you're looking get involved in playing, the websites are where to go. They have a wealth of information on getting started, including places to watch and where most of the community hangs out on the internet.

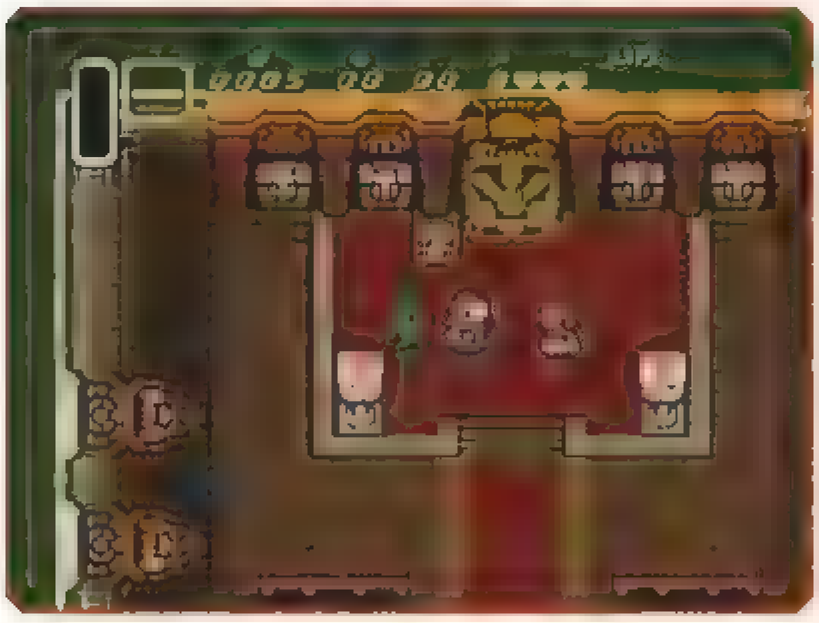
> “The enjoyment of a randomiser is enjoying that specific game to its full potential”
>
> ChristosOwen

▶ Ocarina Of Time randomiser gaining steam, fingers crossed this is extended to Majora's Mask too!”

It's not just something that is being retrofitted into older games, either – new releases too are embracing this love of all things random, with Ori And The Will Of The Wisps introducing procedurally generated time trials for endless leaderboard chasing while more traditional roguelikes such as Dead Cells continue to pick up popularity with their ever varying worlds.

This phenomenon has gathered traction at such a rate that randomising just one game isn't enough for some players – the more daring are willing to pit themselves against the RNG gods across multiple games at once. SMZ3 is a hybrid mod that links Super Metroid and A Link To The Past directly, with four 'dead' doors in each that lead to nothing of consequence letting brave players hop between the two games at will. With items from both games shuffled between the two maps and these newly forged links between worlds providing all kinds of new routing options depending on which items you find when, this extreme example of randomiser mods requires impeccable knowledge of both games and how each new item found changes the options available to you on the fly. It's a lot to manage, but as we say, this is definitely one of the more expert oriented mods out there, and far from the norm – the experts we spoke to seemed to be in agreement that this was a fortunate and fascinating outlier rather than where the randomiser scene is heading. “Personally, I am not much of a fan of combo randomisers,” Chris tells us. “I think it's an absolutely amazing technical feat but for me, the enjoyment of a randomiser is enjoying that specific game to its full potential, not

» [SNES] Super Metroid's focus on items and exploration makes it ideal for randomising.



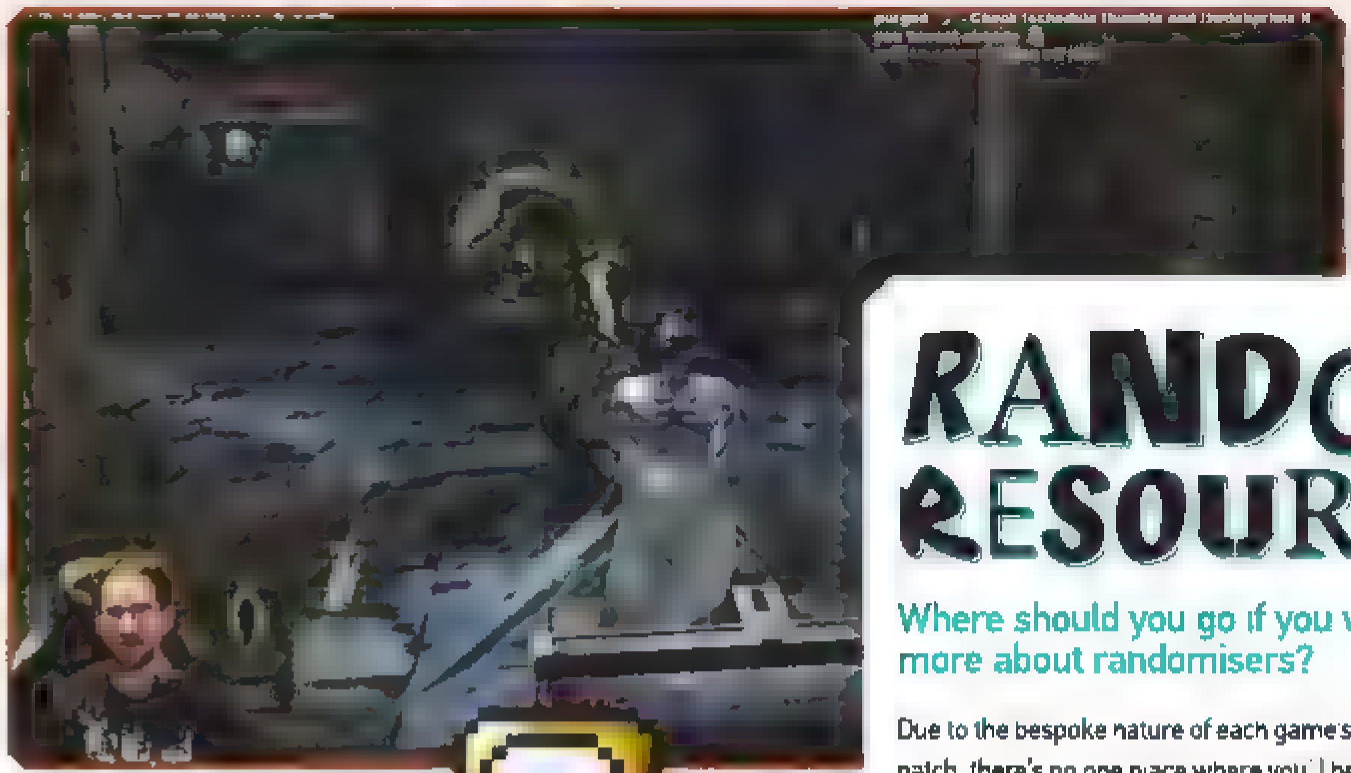
» [SNES] ALTTPR lets you play as all manner of characters, but if you can be a Cactuar, why wouldn't you be a Cactuar? Or a Moogle? Or Kirby?

combining two or more games together. That said, I don't think we'll ever see cross-console randomisers. It was pure chance that Super Metroid and A Link To The Past happened to utilise completely different parts of the SNES memory and could be readily combined. I'm not sure we'll ever get so fortunate with two massively popular game titles again, but who knows!"

While the 'endgame' of the randomiser scene might be competitive racing, everybody has to start somewhere and the good news is that most of the major randomisers are a heck of a lot of fun just to play casually. It's a good idea to set aside more time than you think you will need for your first few runs, since you're likely to encounter a couple of tricky hurdles in terms of item placement and splitting play across multiple sittings can make it all too easy to lose track of where you have and haven't checked. It's also worth replaying the base game a couple of times before attempting a randomised run of it, as there's nothing worse than wailing on a boss that you can't even beat normally, let alone with a different set of tools to what you're supposed to face them with.

Chris echoes this sentiment. "Usually, [randomisers] can require some creative routing or use of items which might not be obvious if you're not familiar with the original game. We often get people who get stuck and can't figure out the way forward and one of our Discord channels is specifically used to help out newcomers!" That refresher course might also remind you of a few item locations you'd forgotten, and every one of those is potentially vital in a randomiser – the sheer amount of dead drops in A Link To The Past (ammo, upgrades, heart pieces and money) means that single inconvenient chests are unlikely to be worth visiting, but it's crucial to know where they all are in case an evil seed forces you to open them. It's pretty rare, sure, but we've seen it happen plenty of times, and at the highest level of play, too. If you're serious about learning a randomiser, trackers (maps bearing item locations and item checklists) will be your best friends both starting out and in the endgame, as these are common screen furniture for streams – especially races – to help viewers keep up with who has found what.

At a time when so much games coverage is skewed towards negativity as that's the path of least resistance and most clicks, the sheer love that exudes from these randomisers and their communities is both refreshing and massively heartening. And it's a special kind of cyclical love, too – the most devoted folks create new ways to play old games, in turn giving players new things to discover and adore about games they thought they knew inside and out, then pushing the creators to take these labours of love even further. "Fundamentally, none of us get paid for this project and it's out of a passion for the game we've invested countless hours in exploring the game's potential!" Chris closes. "I'm honestly very proud of my contribution to the project. I'm the main spearhead of the project, own three different ALTTP Discord severs with 10,000 plus users each, and have had huge impact on development. It gets to be very time-consuming at times and has been interesting to manage with my work life and social life, but I've just about made it work. Mainly thanks to the fantastic team I work with!" ★



» Streamers like LobosJr regularly play randomiser mods, often even going so far as to enforcing their own homebrew rules

» [SNES] A Link To The Past is popular with the randomiser community, some mods drastically alter the game

RANDOM RESOURCES

Where should you go if you want to learn more about randomisers?

Due to the bespoke nature of each game's randomiser patch, there's no one place where you'll be able to find everything you're looking for. Instead, each has its own site, with some using PC executables to create new patched ROMs to order while others conveniently offer the service right from your browser. The one constant is that you'll always need to supply your own legally obtained original ROM file – randomise responsibly, folks – but beyond that, you'll need to use various different sites and programs to create your own randomised adventures. Here are a handful to get you started.

A LINK TO THE PAST

■ The preeminent randomiser of recent times, this is as good a place to begin as any. Start off looking at the entry-level seeds, then see how you get on with some of the more trickier ones.

alttpr.com/en

SUPER METROID

■ Hone your wall-jumping skills then give this one a go – the core game already offered sequence-breaking galore, but you'll get to take that to the next level with this mod.

itemrando.supermetroid.run/

POKÉMON

■ Conveniently, this one program can mess with any of the classic *Pokemon* games, and you're free to choose the extent to which it does so in a dizzying number of generation-specific ways. Enjoy, trainer

pokehacks.dabomstew.com/randomizer/

DARK SOULS

■ If you thought FromSoftware's action-RPG was difficult before, wait until you try it with an extra layer of freshly randomised nonsense. The linked mod mixes up item locations, but there are others than remix enemy placement if that's more your scene.

github.com/HotPocketRemix/DarkSoulsItemRandomizer

OCARINA OF TIME

■ Steel yourself, because this one can throw up some rough seeds. Mitigate those as best you can with the options available, though, and it'll still prove a unique twist on a game you thought you knew inside out.

github.com/AmazingAmpharos/OoT-Randomizer

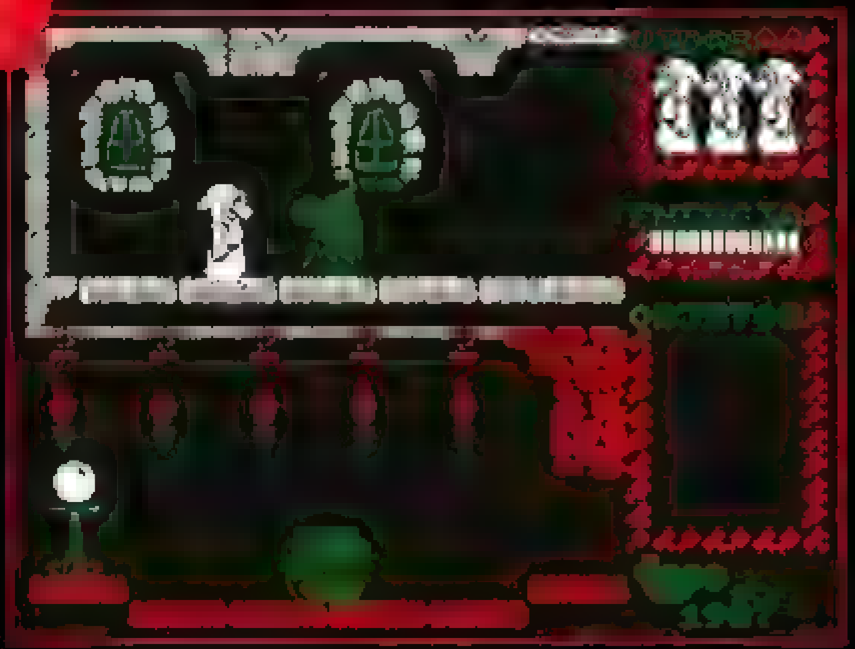
topo SOFT

As well as being a key player in the golden age of Spanish videogaming, Erbe Software and its development arm Topo Soft smashed piracy by making games affordable while capitalising on a strong relationship with overseas publishers

Words by David Crookes

With attempted coups, a dire economy suffering rampant inflation and terrorist campaigns by separatist group ETA, you could dare say post-Franco Spain was having as much trouble finding its feet in the early Eighties as the British lager louts living it large in Benidorm.

From a cultural point of view, however, the situation was much better. Spain may have suffered the indignation of a nil-points performance in the Eurovision Song Contest but the countercultural movement dubbed La Movida Madrileña had seen a creative boom in music, film, television, literature and art.



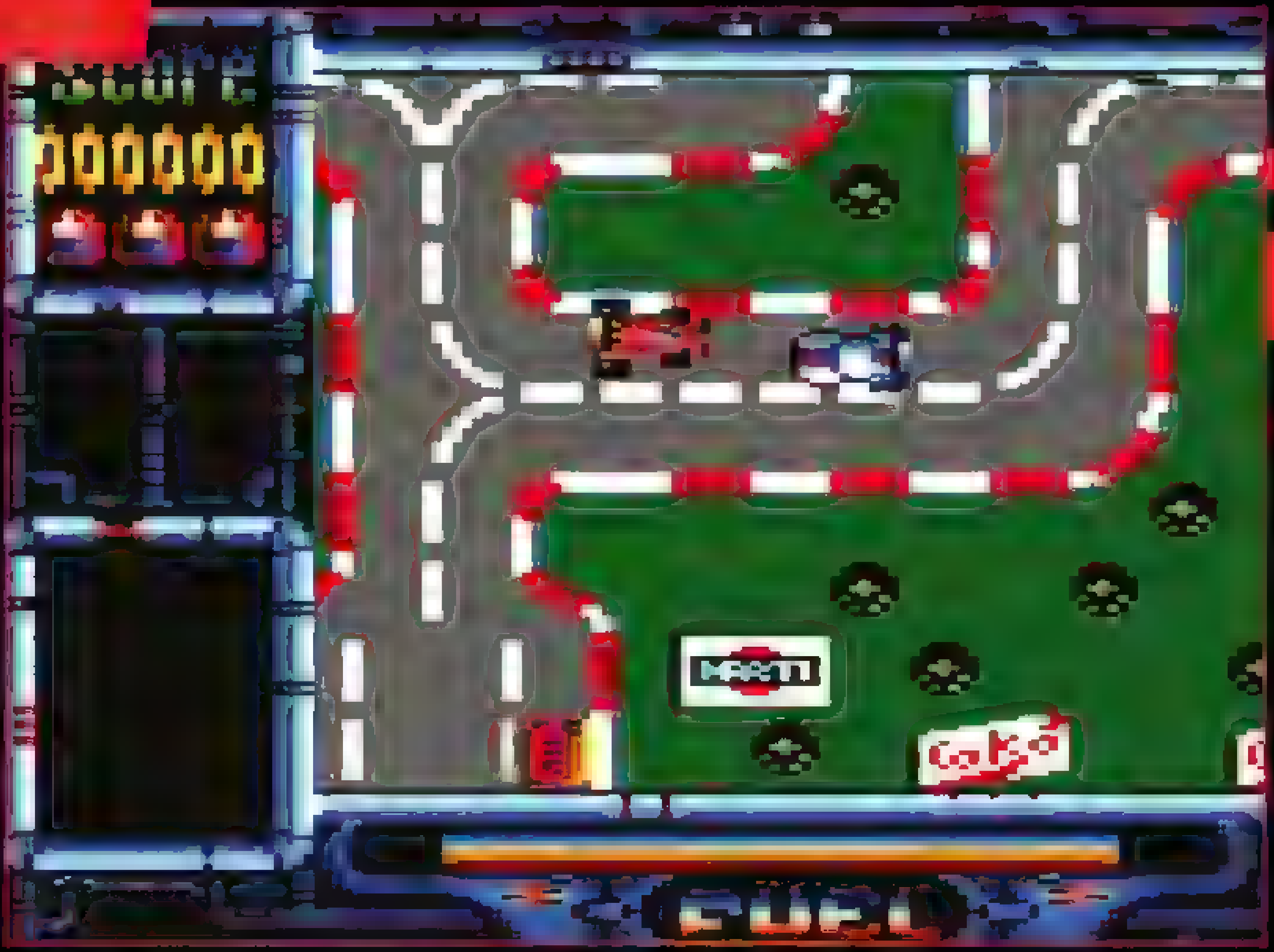
» [Amstrad CPC] Set around a castle and involving magic events, Spirits was Topo Soft's official first game.

The Eighties, as it happens, was also a good decade for Spanish videogame developers. Small groups of programmers had begun to make their first games around 1983, publishing them via Indescomp which had formed a year earlier to distribute titles developed abroad. The company was joined by Dinamic Software in 1983 and by Erbe Software in 1984. Together with Opera Soft, they were the key players in what became known as a golden era of Spanish software.

Erbe Software was founded by Andrew Bagney and Paco Pastor to distribute UK-made games in Spain. Paco was well known as the former vocalist of a pop group called Formula V which had been active in the Sixties and Seventies, and his company was responsible for getting titles such as Knight Lore, Night Shade and Jet Set Willy II into the hands of Spanish gamers.

Indeed, publishing deals with Ocean, Imagine, Gremlin, US Gold and Melbourne House saw Erbe become the country's main distributor of games but it wasn't long before it also tried its hand at publishing original titles of its own. Step forward artist and coder Javier Cano and Emilio Martínez Tejedor who had created Mapgame for the ZX Spectrum, Amstrad CPC and MSX.

The pair had developed their educational title about the geography of Spain using a black and white monitor so they got a nice surprise when they took it to a computer shop in the hope of striking a deal with the owner. Promptly connected to a colour display, the shopkeeper was impressed and encouraged them to contact Erbe. When they did, Andrew and Paco hired



» [Amstrad CPC] Rock'n Roller was Topo Soft's take on the coin-op Rally X and it appeared on a number of compilations.

them and, together with José Manuel Muñoz Pérez, the developers ended up making Las Tres Luces de Glaurung in 1986. This was followed by another Erbe original called Ramon Rodriguez.

Buoyed by the success of the games (Las Tres Luces de Glaurung was distributed in the UK by Melbourne House as Conquestador), Erbe decided to create a dedicated developer subsidary called Topo Soft in 1987. "The directors had decided that Erbe would only distribute games and they wanted the new developer to be economically autonomous," explains freelance graphic artist Julio Martin, who worked on Erbe's Whopper Chase, a game that had been commissioned by Burger King.

Paco decided on the name Topo Soft after a good deal of brainstorming. "Some suggestions were interesting, others totally absurd," recalls Martin. Topo Soft happened to be the name of a small computer shop located in the subway corridors of the Madrid Atocha railway station. "Its owner worked at Erbe and since the name was already registered, it saved money and time," Julio continues.

The first game to be labelled Topo Soft was the arcade-style adventure Spirits in 1987. Created for the ZX Spectrum, Amstrad CPC and MSX, it was a rather tough title that utilised a split-screen, with the player's character – a magician – roaming around the top and objects positioned at the bottom. Requiring extensive mapping and spread over a large number of screens, it was well received at the time. As such, it lay down a positive marker for other goodies to come.

These early games included Colt 36, an exclusive for the MSX that was predominantly written in BASIC by Luis López Navarro. It involved players controlling a crosshair in a western-style environment, shooting enemies across various locations as and when they reared their heads. But what was perhaps most interesting is that it was one of the first games to be sold for 875 pesetas at a time when new launches always cost 2,000 pesetas.

Selling games at what was, in effect, about £5, was revolutionary in Spain and it helped to smash the pirate market. Gamers were happy by this move and it helped Erbe increase its sales by 150 per cent. But the low prices were not just for Topo Soft titles and included games created by UK companies such as US Gold, Imagine, Hewson, Durell and Gremlin. It put pressure on rivals to match the new price. "It did a lot of damage to other small businesses," Julio says.

To ensure a good supply of games, Cano, who was in charge of a growing number of freelancers, advertised for new programmers and graphic artists in the main Spanish magazines. "Many people responded," says Martin, as the firm's stock rise quickly on the back of hits such as Cray-5 for the Amstrad CPC and Survivor for the CPC, Spectrum and MSX.

Among those brought on board was Javier Arevalo who coded and designed Stardust with his brother. "Topo Soft offered guidance and a network of other people to help with parts of the game, like art, music and so on as well as hardware resources like floppy

» [Amiga] The middle section of Viaje Al Centro De La Tierra had players controlling three characters on a journey to the centre of the Earth.

TIMELINE

1984	Erbe Software founded as a publisher.
1985	Erbe publishes foreign-made 8-bit games.
	Erbe publishes its own title, *MapGame*.
1986	Javier Cano and Emilio Martinez Tejedor create more homegrown titles.
1987	Erbe Software spins off its development arm into Topo Soft.
	Spirits becomes the very first game from Topo Soft.
	Erbe slashes game prices to 875 pesetas.
1988	Topo Soft has a prolific year with highlights including *Mad Mix Game*.
	MicroHobby editor Gabriel Nieto heads development.
1989	Having left, Javier Cano creates developer Animagic.
	Topo Soft continues to produce 8-bit games such as *Metropolis* and *Viaje Al Centro De La Tierra*.
1990	Topo Soft works on the licence for *Gremlins 2*.
	Most internal staff are laid off as Topo Soft relies on freelancers.
1991	*Black Crown* is released for DOS PCs.
	Desperado 2 is the year's biggest hit for Topo Soft.
1992	*Luigi & Spaghetti* rips Mario's brother into a cool platformer.
1993	Erbe and Topo Soft suffer a huge fire which destroys Nintendo cartridges.
	Nintendo pulls its distribution deal with Erbe and Topo Soft.
1994	*Super Scrylis* becomes Topo Soft's final game.
1995	Erbe Software distributes fewer and fewer games.
1999	As distribution deals fall, Erbe disappears.

THE DNA OF TOPO SOFT

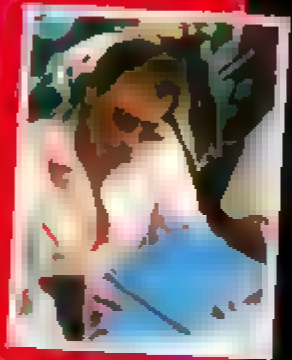
PACO PASTOR

■ From 1967 to 1975, Paco Pastor was best known in Spain for his role as lead singer in the pop group Formula V, and he made a further name for himself when he pursued a solo career. As the cofounder of Erbe Software, and then Topo Soft, he played an integral part in its early success and it was his idea to lower the retail cost of games.

SPORT STARS

■ Topo Soft developed a number of games based on sport and, in the case of Real Madrid forward Emilio Butragueño, they splashed the cash to do so. He is understood to have been paid 10 million pesetas (£53,000), a huge amount at the time. Topo Soft also created games based on basketball player Dražen Petrović and cyclist Pedro Delgado.

ALFONZO AZPIRI



■ Well-known for his creation of the sexually-insatiable space adventurer, Lorna, the Spanish comic book artist Alfonzo Azpiri not only allowed Topo Soft to create a game based on his character, he also drew huge numbers of Topo Soft's covers, making him synonymous with the developer's output in the last Eighties and early Nineties.

UK MARKET

■ Erbe Software and Topo Soft were both closely aligned with the lucrative and prolific British videogame market. To that end, Erbe would publish UK-made games (later striking deals with American and Japanese giants) while Topo Soft would allow its games to be distributed by UK publishers such as US Gold where the ZX Spectrum and Amstrad CPC were also strong.

8-BIT COMPUTERS

■ One of the problems Topo Soft faced in its later years was a failure to properly embrace and invest in 16-bit videogame development. So although it did create games for the Atari ST, Amiga and DOS-driven computers, it was primarily an 8-bit software house, concentrating mainly on the home computers prevalent in Spain: the ZX Spectrum, Amstrad CPC and MSX.

▶ drives or computers to develop on and for," says Arevalo. "Guidance was mostly Javier Cano acting as a producer, nudging us in the right direction while letting us develop at our own pace. Most of us were not employees and instead cashed in royalties from the games' sales."

Another big hit was Desperado, based on Capcom's arcade game Gun.Smoke by Yoshiki Okamoto (the game was released as Gun.Smoke outside of Spain). Coded by Tejedor with graphics by Julio and a loading screen by Cano, the top-down shooter with a Western theme had begun life as an unauthorised clone, with US Gold later obtaining an official licence before it was released in the UK.

"It was a special project and I made it like it was a Hollywood movie," says Martin. "I designed an animated ending with a rider set in front of the moon in the background and added some final credits that had jokes about cinema and even the logos for Dolby and the American Society of Cinematographers." The game's cover was drawn by Alfonzo Azpiri, a comic book artist whose work often had an erotic slant. Azpiri worked on most of Topo Soft's covers and one of his recurring characters, Lorna, a space adventurer in the mould of Barbarella, was made into a game in 1990.

Before then, however, Topo Soft had begun to change its structure. Up until 1988 Tejedor had been the chief coder, José Manuel Muñoz the 'ideas man', and there were many freelancers including Martin, the Arévalo Baeza brothers, musician César Astudillo and Rafael Gómez Rodriguez. Topo Soft, however, decided to bring people in-house as staff.

"It was going more for a factory type of development rather than the art house style of its beginning, if that makes any sense," says Arevalo. "We did not continue working with them because both my brother and I wanted to study at university, and a very demanding job like that would not be compatible."

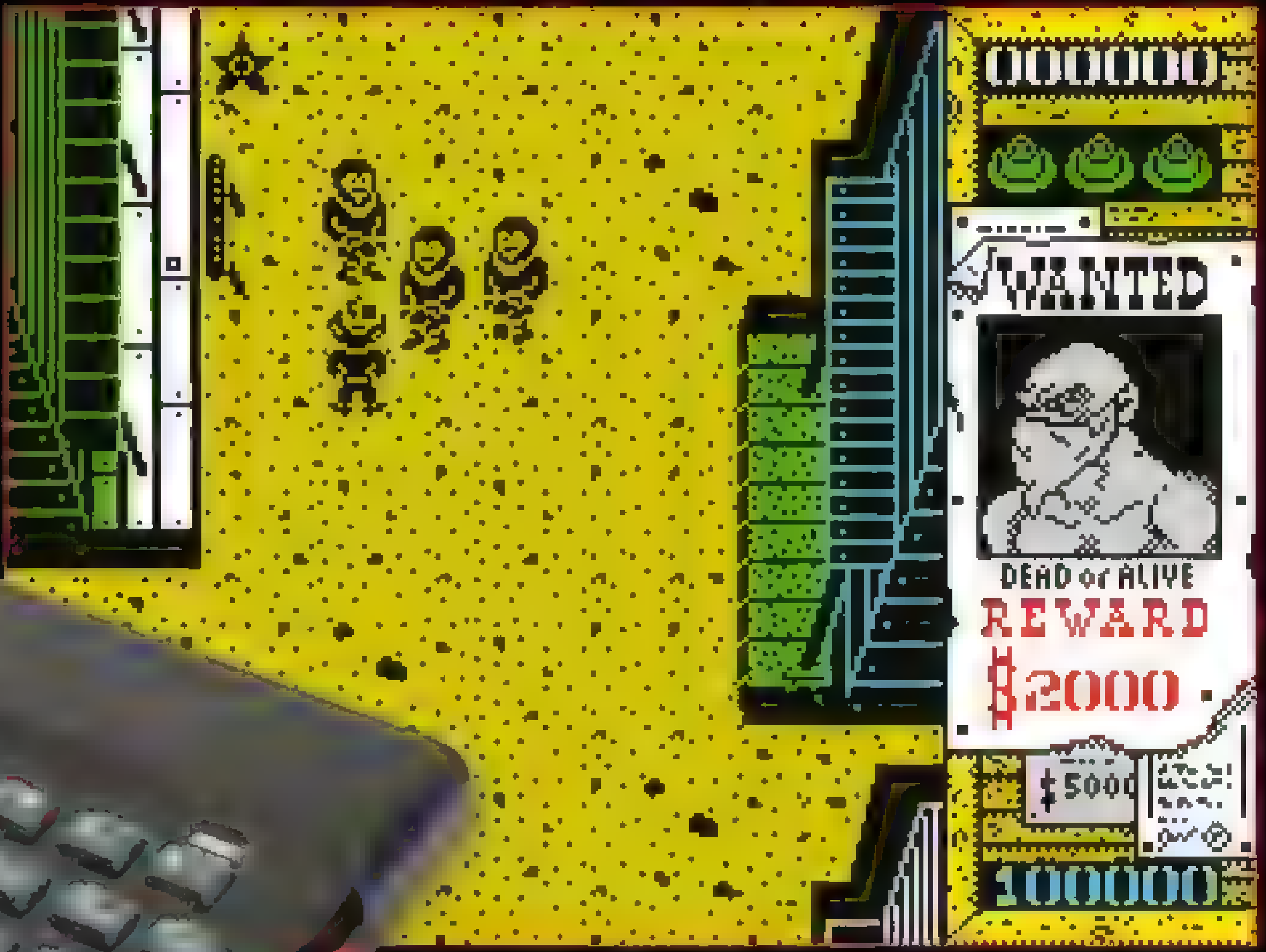
> "Games were made so quickly that it was like a churros factory, in my view"
>
> Julio Martin

The change meant Javier Cano ended up departing and forming a new company, Animagic but Topo Soft continued to grow. "From this point, the games were mainly developed by a team of 27 programmers, eight graphic and up to four musicians with everyone coordinated by Gabriel Nieto," Julio says. As such games came thick and fast.

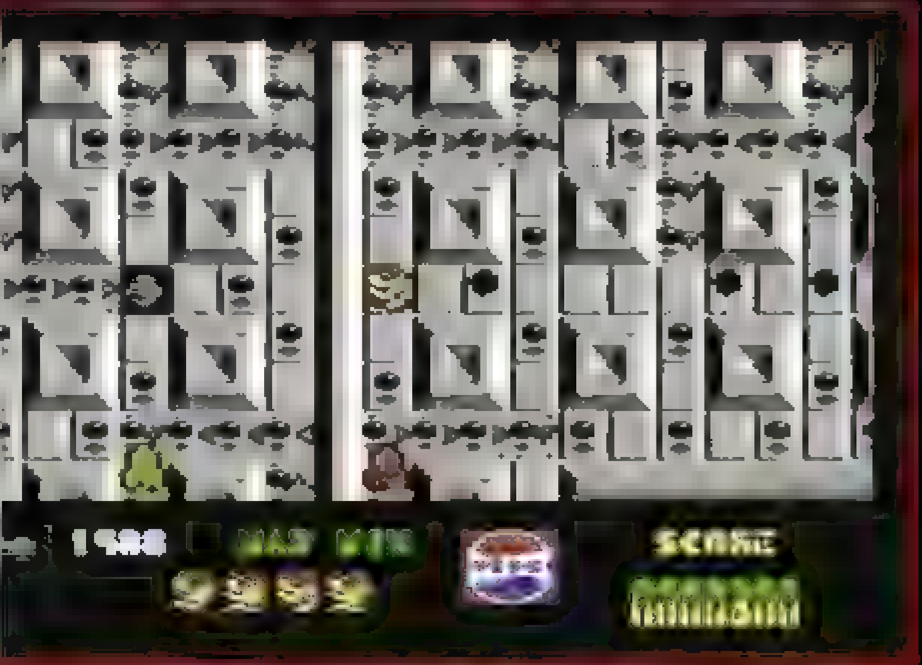
Ale Hop was a MSX exclusive by Luis López Navarro which involved navigating a yellow character past a series of obstacles while avoiding too many hits and dealing with a single life. Black Beard was a fun offering in the style of Gauntlet which made it to US Gold's Kixx labels as its first original release thanks to a deal which saw Spanish games head the way of the UK.

Arcade shooter Chicago's 30 got an outing on the Atari ST as well as 8-bit computers, exploring prohibition and the gangster culture it bred, while Emilio Butragueño Soccer (which got an airing in the UK courtesy of Ocean) revolved around the Real Madrid striker and sold more than 100,000 copies before spawning a sequel.

Another standout success was Mad Mix Game, a Pac-Man clone that was so similar to the original that the first of the 15-levels was dropped for the UK release. Much of this was due to the game being



» [ZX Spectrum] Desperado – or Gunsmoke as it was called in the UK – was a vertically-scrolling variant of Commando.



» [C64] The Spanish version of Mad Mix Game had to be watered down when it was licensed by Pepsi because of obvious similarities with Pac-Man.

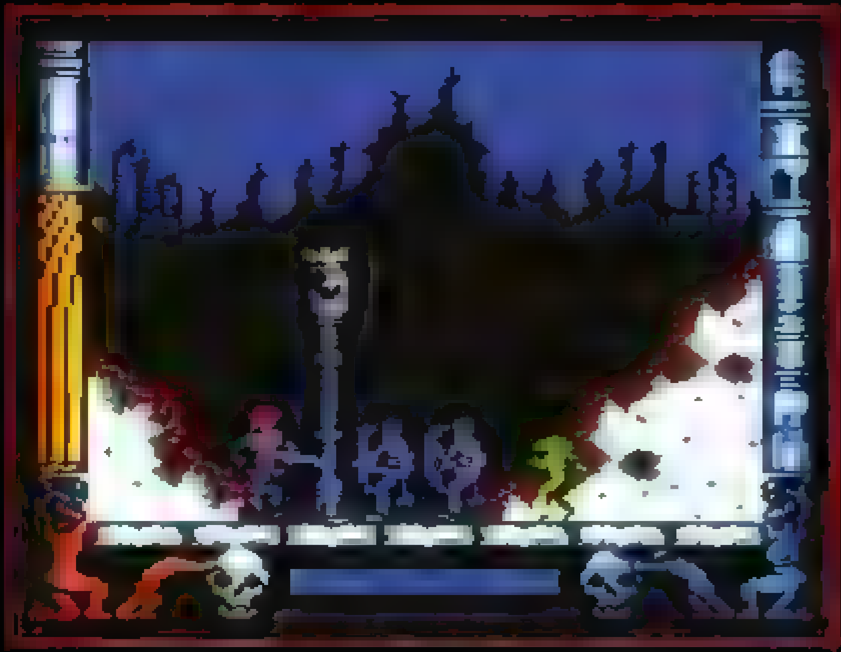
rebranded The Pepsi Challenge in Britain thanks to a promotional deal with the soft drinks manufacturer. Getting sued by Namco would have proven to be very embarrassing.

From Coliseum and Titanic to Drazen Petrovic Basket and Score 3020, the games continued into 1989 but quality was not always assured. That latter game, for instance, was a mediocre pinball game for the Spectrum, CPC and MSX and ball handling was tough. "Games were made so quickly that it was like a churros factory, in my view," says Martin, by way of explanation.

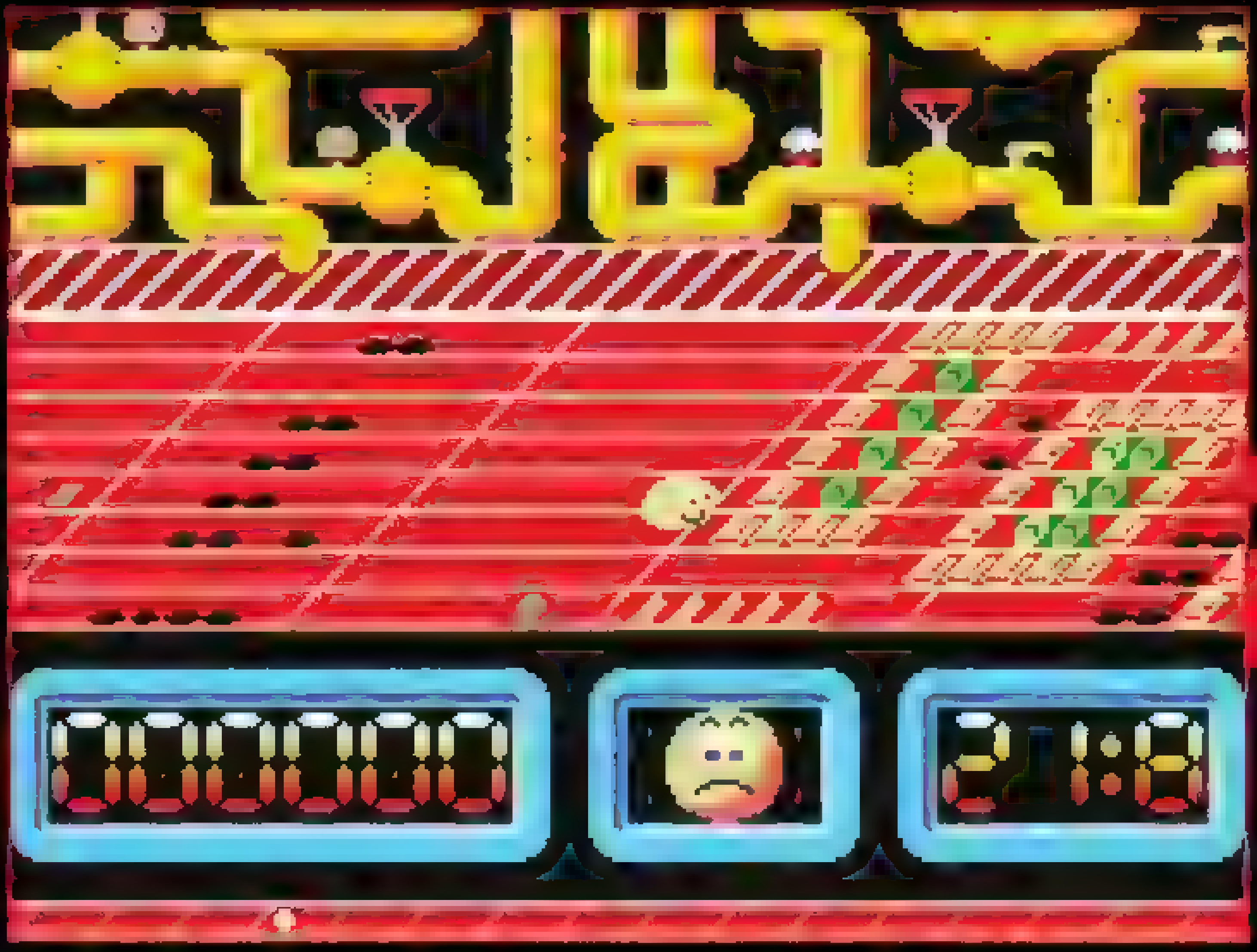
But that's not to say Topo Soft couldn't reach great heights despite churning out many titles. The action arcade Viaje Al Centro De La Tierra was widely acclaimed, encouraging players to navigate three protagonists, Professor Lidenbrock, daughter Graüben and nephew Axel, towards the Earth's centre over three sections in the 8-bit versions and five on 16-bits. But the fact the game was released on the 16-bits was not only a reflection of a changing videogame market but also part of the company's eventual downfall.

The cost of making games for 16-bits was higher yet, in Spain, 8-bits computers still reigned. It left Topo Soft in a quandary: should it chase the growing overseas 16-bit market and expand its staff numbers in order to do so or should it continue developing for 8-bits despite fewer and fewer opportunities for exports? For the time being, it attempted both.

In 1990, it secured the rights to make the horizontal scroller Gremlins 2: The New Batch for the Spectrum, Amstrad CPC and MSX. Loma, on the other hand, was made for those three computers but also the Amiga, Atari ST and DOS. Of the six versions of this scrolling beat-'em-up, the Amiga version stood out the most since the 8-bit versions were scaled back to the point where it was difficulty to play. That, more than the controversial drawing of the main character, is what marked Loma out as a game-changer for Topo Soft.



» [Amstrad CPC] Inspired by Capcom's coin-op Trojan, Metropolis saw players do battle with a sword and shield in a futuristic city.



» [MSX] Ale Hop was a oddity, involving a spherical character which had mere seconds to reach the end of each complex.

Unfortunately, it didn't seem able to see through this change in tactics and, as the 8-bit market declined and consoles began to eat into the home computer space, it found it difficult to keep up. Erbe seemed more content with distributing non-Topo Soft games for 16-bit computers so while 1990 was also blessed with bobsleigh racer Ice Breaker as well as Mad Mix Game 2 and the forgettable RAM, 1991 was far less prolific.

Indeed, that year brought the strategy game Black Crown for DOS as well as Desperado 2, Tour 91 and Zona 0 for DOS and the 8-bits. But titles for the Amiga and Atari ST were nowhere to be seen. Topo Soft therefore limped through 1992 with a couple of DOS games Luigi Y Spaghetti and Olimpiadas 92 (to mark Barcelona's hosting) but with Paco Pastor having departed and little future direction, the writing was most certainly on the wall.

Erbe was also suffering. Although it had grown to become Spain's most important publisher thanks to distribution deals with LucasArts, Infogrames, Sierra On-Line, Acclaim, Nintendo and Adventure Soft, a huge fire at Erbe's warehouse in Móstoles in 1993 had dealt a major blow. It destroyed as many as 50,000 Nintendo cartridges and led to it losing the Japanese giant's distribution deal. It never truly recovered.

While Topo Soft ended up making Luigi En Circusland and Super Sorylis in 1994 as a final flourish, Erbe could only stand and watch helplessly as major international companies began setting up Spanish subsidiaries, causing other distribution deals to fall away. With other Spanish publishers and developers also struggling, Spain's golden age of gaming came to a sad close, although its output is definitely worth revisiting.

WHERE ARE THEY NOW?

Julio Martin

Julio Martin was nicknamed 'quickfingers' by Javier Cano for the speed at which he moved his digits when creating graphics for the ZX Spectrum. When he left, he created screens for ATMs alongside multimedia presentations, working for Philips Informática, Telefónica and many more. Retaining a passion for graphic design, he continues to illustrate today and he's just as likely found with a brush, colour pencil or airbrush in his hand as he is sitting in front of a computer.

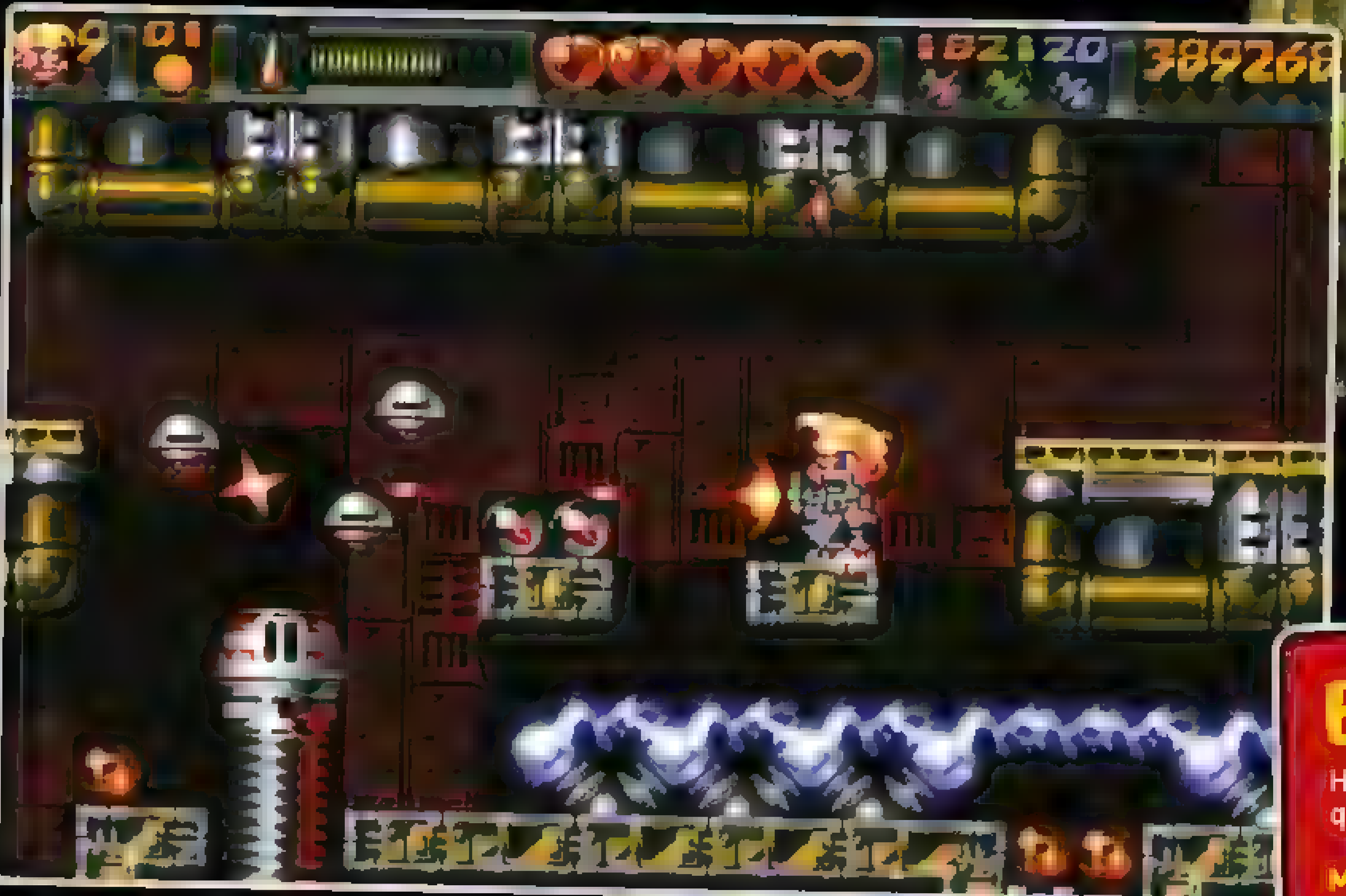
Javier Arevalo

Having created *Stardust* at the age of 16 with his brother, Javier eventually left Topo Soft and joined Animagic with other former Topo Soft staff. He then founded a demo company called Iguana before becoming a lead programmer at High Voltage Software in 1997 and joining Pyro Studios as a technical manager a year later. Save for a three-year period at Radical Entertainment, he remained at Pyro until 2017. He is now academic director of videogames at U-tad in Madrid.

The Making Of Ruff 'N' Tumble

After an early Nineties career break, Thing On A Spring developer Jason Perkins bounced back with Ruff 'N' Tumble. Jason tells Retro Gamer how a Bitmap Brother encouraged him to create his classic Amiga run-and-gun

Words by Rory Milne



» [Amiga] The graphic style of Ruff 'N' Tumble is superb thanks to detailed, well-animated sprites.

By the early-Eighties, the term 'computer whizzkid' had become synonymous with schoolboy videogame developers. One such whizzkid was Jason Perkins, who had his first game published at 15 and went on to create hits like Thing On A Spring. During the early Nineties, however, he found himself out of work and out of sorts, until an offer from a good friend lifted his spirits, as Jason explains. "Ruff 'N' Tumble was really thanks to Eric Matthews, who I'd known from the Bitmap Brothers days," the former developer notes. "I was in a very low place, and Eric said: 'Hey look, we're setting up a publisher called Renegade. You've done some really good stuff in the past. Have a think about some ideas and then come and see us, because we can help you with the funding.'"

Taking heart from this pep talk, Jason dusted off his Amiga and looked to a pair of popular platformers for inspiration. "A game that had always impressed me was Sonic on the Mega Drive," Jason remembers, "and particularly its loop-the-loop. I also thought Turrican was great – that was done very well. A lot of the stuff that I had done was platforms: Thing On A Spring, Monty On The Run and a few other ones. So I felt very comfortable in that space, and I was thinking along the lines of some kind of platform game."

In a matter of mere weeks, the developer had produced a side-scrolling shooter that encouraged speedruns and incorporated a loop-the-loop. On inspection, a highly impressed Eric Matthews asked Jason to draft a business plan and recruit an artist. "I had this character that had a machine gun that was spitting out bullets, and a couple of basic enemies on a horizontal/vertical moving path," Jason says of his demo. "I showed Eric it, and he was like: 'I think you've really got something, but you're going to need to present a plan about how it's all going to work and find an artist to work with.'"

Drawing on contacts made at System 3, Jason reconnected with a colleague who was between assignments. "I knew the guys that worked on Armalyte – including an artist called Robin Levy," recalls Jason. "He was living in a house in Harrow, and I went and saw him. I said: 'Look, this is what I've been doing on the Amiga,' and I managed to get him excited about it."

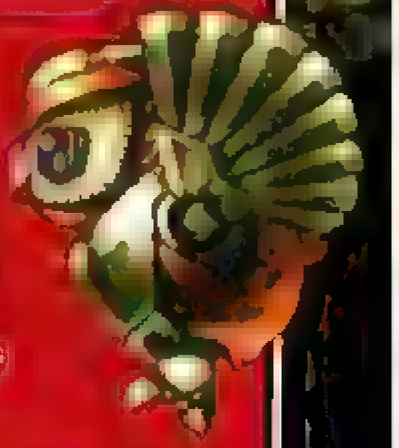
Having given Robin artistic direction, Jason and his collaborator created a backstory for their project and a metallic army of foes called Tinheads. "We liked the idea of a kid who gets lost in a fantasy world after his marbles go down a big tunnel," Jason considers, "and his plastic gun becomes a real gun. Alice In Wonderland did it before, but Ruff had a machine gun! The Tinheads were playing to Rob's artistic strengths rather than anything else – Rob really knew how to draw metallic things. We had also watched Terminator way too much."

The narrative devised by Jason and Robin for their work-in-progress subsequently inspired its name. Player character designs and a game plan followed shortly after. "Because of the childlike theme we ended up with the title Ruff 'N' ▶

Barmy Bosses!

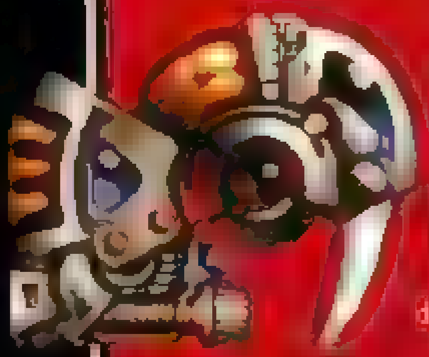
How to take down Ruff 'N' Tumble's quirky mayors

MECHANICAL OWL ▶



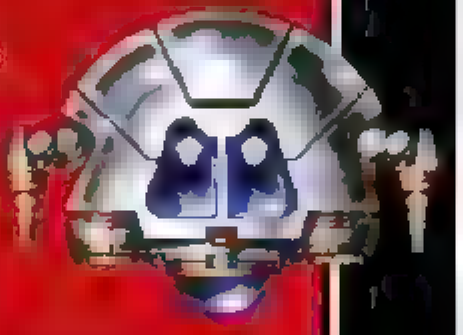
- Crouch near the front of the platform and blast the owl until it's le out six sonic screams, then jump off into the bottom-left of the screen to avoid its swooping attack and stay there until it retreats. Ignore the bonus and enemy eggs that don't land on the platform.

◀ THE CRAWLER



- Get close enough to the Crawler to hit it with a few rounds, then jump on to the far left of the lowest platform to avoid its return fire and subsequent charge attack. Repeat until you blow it to pieces while dispatching or avoiding any Tinheads that it spawns along the way.

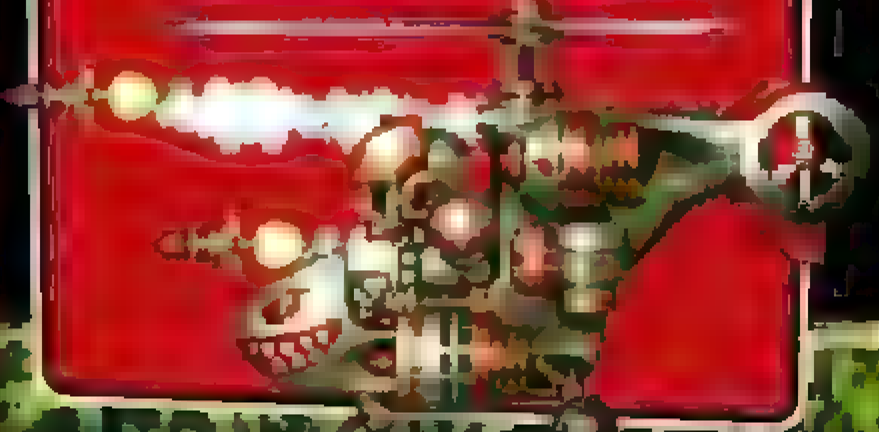
GIANT HEAD ▶



- Pick up the blue laser and get in as many hits as possible before the Giant Head starts firing UFOs at you. Dispatch these before turning your attention back to the boss, and once you've exhausted the blue laser get the red one and use it to finish the job.

▼ DOCTOR DESTINY

- If you're okay with cheating then get to the far right of the stage and blast the rear of Destiny's helicopter – it isn't armed. Otherwise, bounce from platform to platform collecting power-ups and health, and take shots where you can to gradually drain the doctor's health.



A Rough Guide To Ruff's Guns

The lowdown on Ruff 'N' Tumble's upgradeable firearm

MACHINE GUN

■ Ruff Rodgers' basic weapon may be a machine gun, but it's barely more powerful than a peashooter. Even at full power it spits out ineffectual bullets at a snail's pace, but if you hold down fire the flow of bullets slows rapidly and further reduces the gun's usefulness.

DOUBLE SHOT

■ Effectively what you would expect from the machine gun, the double shot upgrade gives you a powerful weapon with rapid-fire ammo. It's also arguably *Ruff 'N' Tumble's* most satisfying gun thanks to the noise that its bullets make as they drill into Ruff's metallic foes.

LASER BOLT

■ Likely the most balanced weapon in *Ruff 'N' Tumble*, the laser has a really long range and emits deadly shards of light at a frightening pace. Its only downside is that it powers down pretty quickly, but it can do a lot of damage in the short time that you have it.

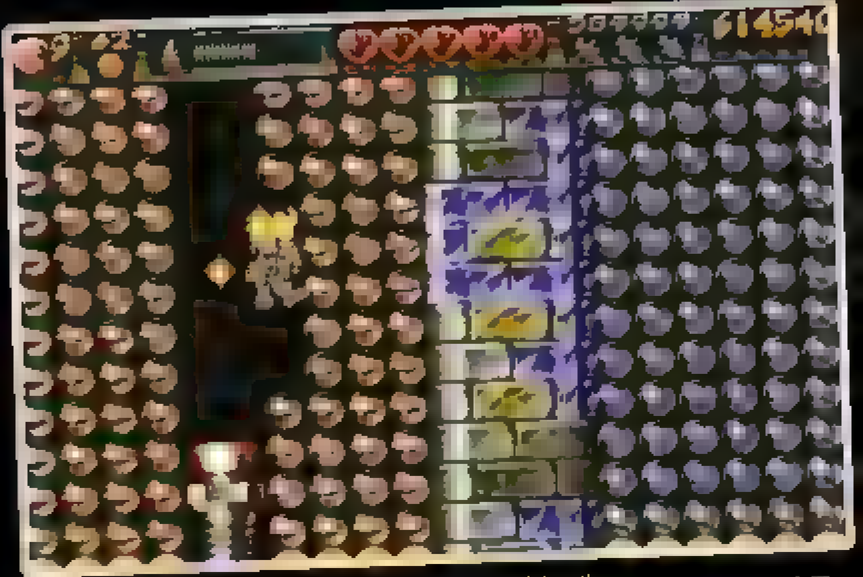
FLAMETHROWER

■ For short-range scuffles accept no substitutes: simply put, the flamethrower is your weapon of choice in face-to-face encounters. As with the laser, the flamethrower comes with a strict time limit on its usage, but it's great for getting you out of tight spots.

ROCKET LAUNCHER

■ Although sure to satisfy your appetite for destruction, the rocket launcher is a short-lived thrill. For as long as its ammo lasts it's a blast – literally – as it destroys everything in its path. And to be fair, if you could keep it much longer it would spoil the game.

Tumble In The Fantasy Forest," Jason reflects. "Rob started by doing some concept artwork for the main character and I put together a design document, and then a couple of weeks after I went back to Renegade and started pitching. Renegade seemed to really like it, and very quickly a contract came through."



[Amiga] Collecting marbles and coins in Ruff 'N' Tumble's rather cool pinball stage.

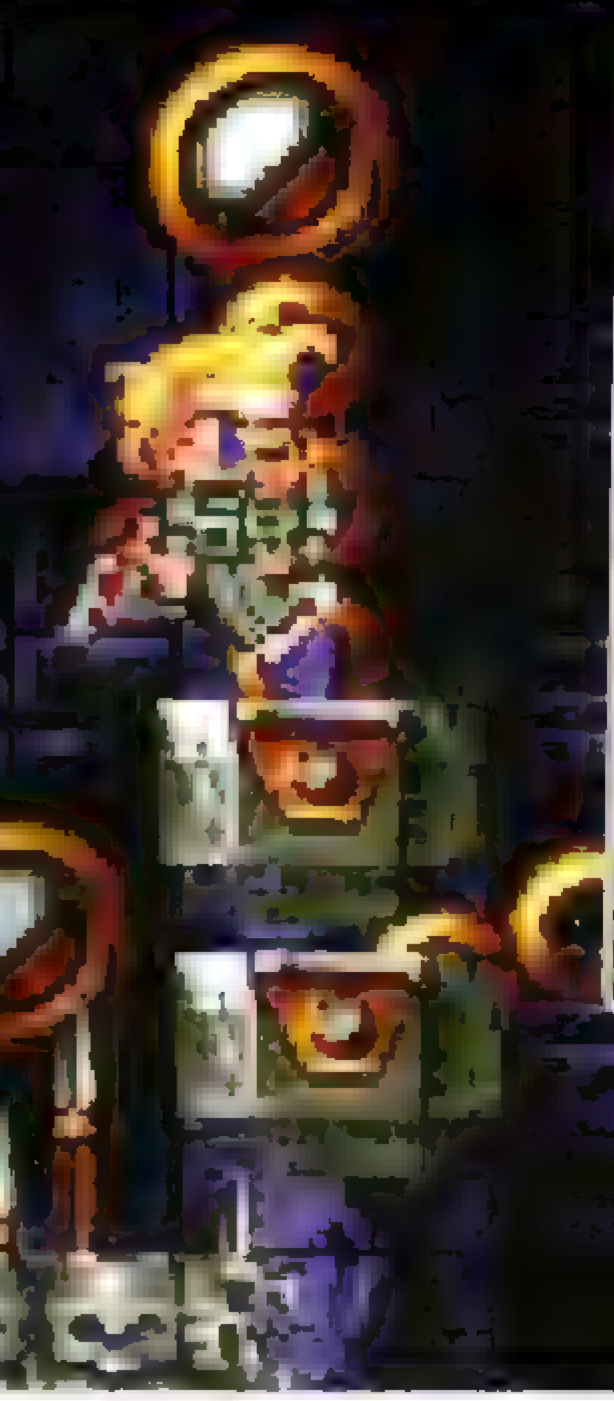
As well as a contract, Jason's publisher also forwarded the developer a cash advance, which allowed him to set up a development space. "I got a tiny little house and set up one of the bedrooms as an office," recollects Jason. "Rob'd come over, and we'd work on stuff. We had a loose milestone schedule. I started working on a really nice level editor, which would allow us to do pretty much everything in terms of building the graphics for the levels, so placing the enemies and interactive objects around the stages would be really easy."

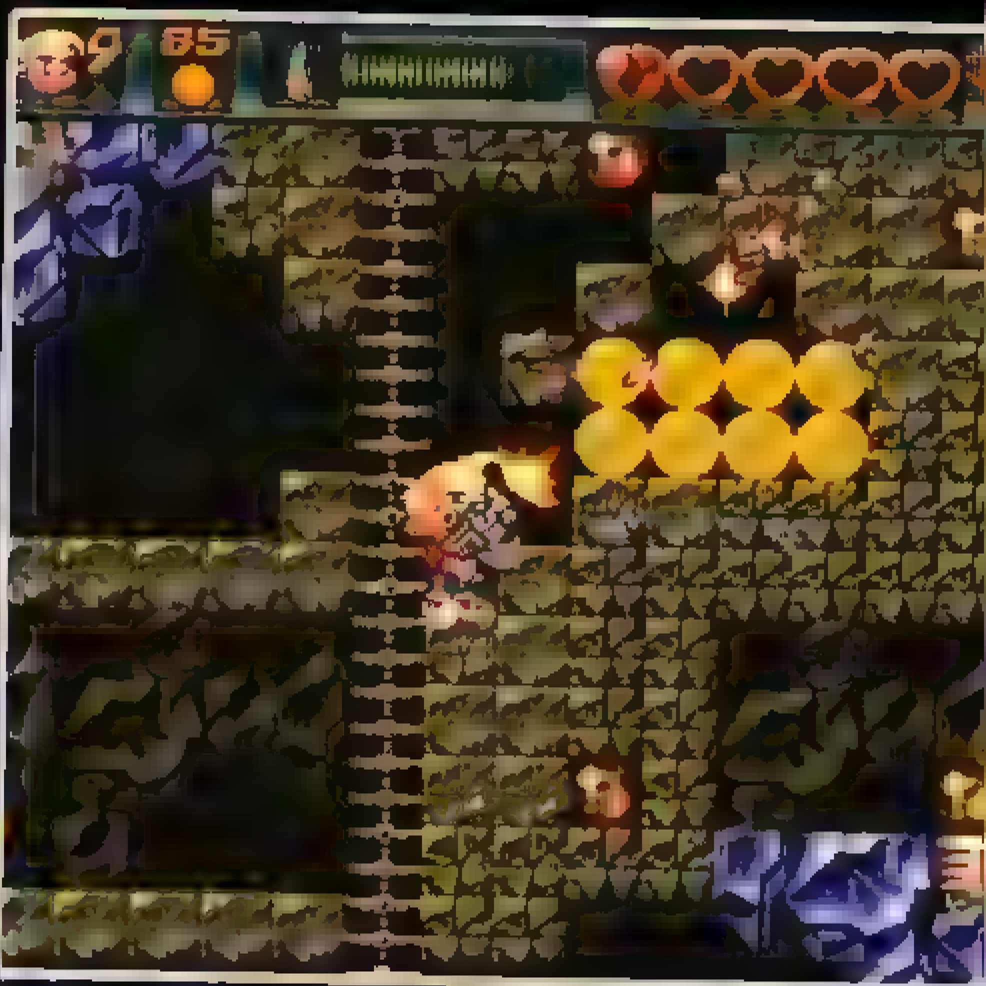
In addition to enemies and interactive objects, Ruff 'N' Tumble's developers were also devising weapons to place around their emerging game's stages. "There was definitely a keenness to add variety by having different weapons," Jason enthuses, "but we probably should have spent a bit more time balancing them, because it was quite tricky when you just had the basic machine gun. Originally the rocket launcher was designed as the weapon for one of the bosses. But we were playing around with it, and thinking: 'Oh, let's add that in.' So you got this limited but powerful weapon that you could use to really dispatch the bad guys."

The plan for Ruff 'N' Tumble's bad guys was that they would be ruling over four distinct worlds, the first of which would have a fantasy forest setting and a forgiving opening stage. "The first fantasy forest level was never designed to be a tutorial as such, but to be easier, I guess," Jason ponders. "We obviously always had in mind that there would be level progression, and the need for increased skill. And so as you went through each world we felt that we could make things more complicated."

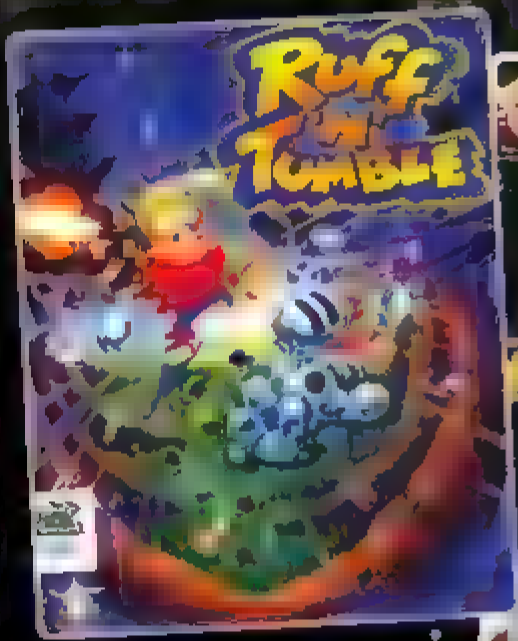
For their game's second world, Jason and Robin opted for an underground mine setting, the bottom of which they flooded to give their hero Ruff Rodgers an underwater challenge. "We played around with Ruff running out of air since it was such a simple game mechanic," Jason reveals, "and we looked into various pick-ups to give him more oxygen as he swum around. One of the games we were playing was Sonic, and it had that feature. It was in Mario as well. But Ruff was underwater and travelling, and he had enemies and things to avoid, so there was too much going on to add that additional factor."

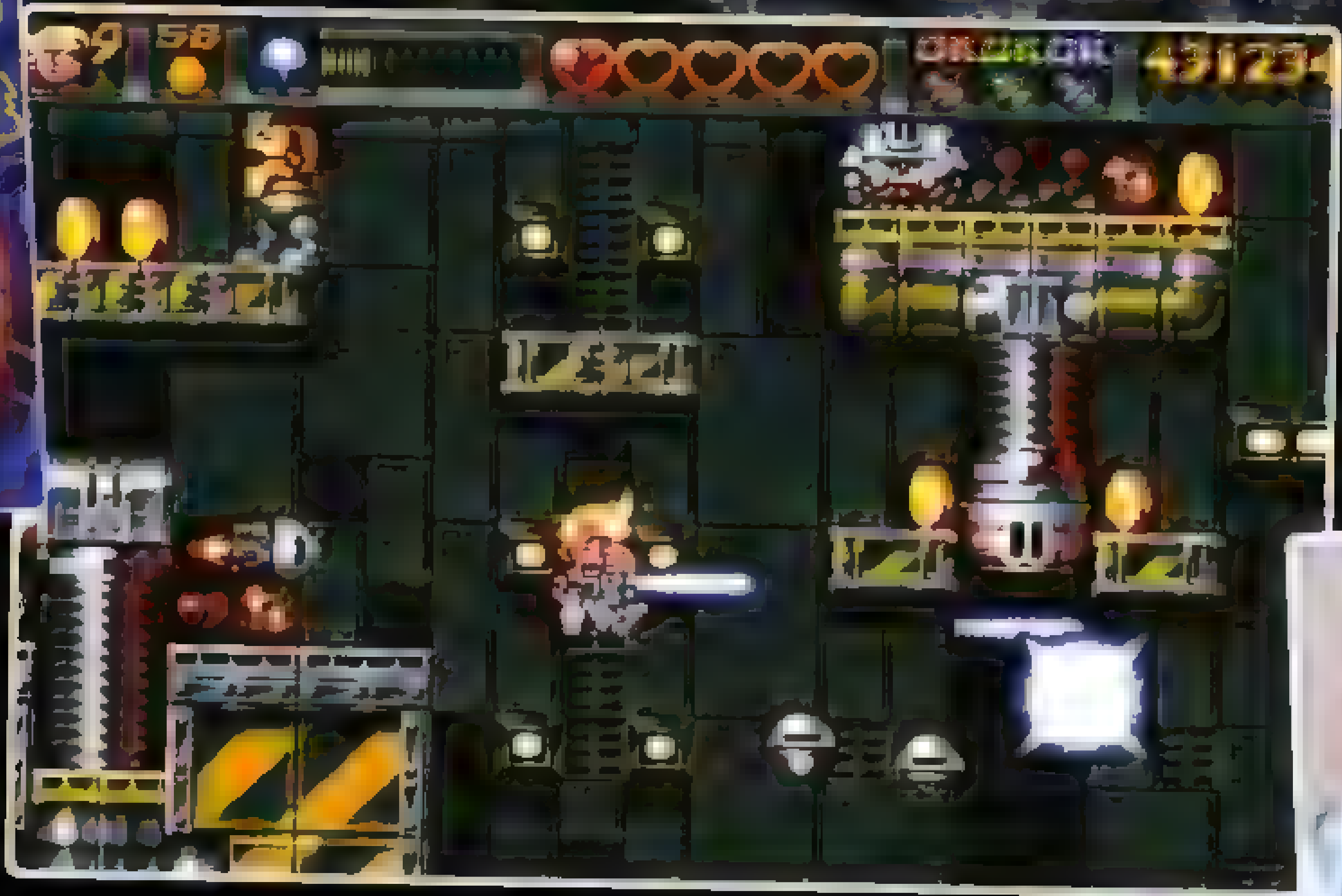
An additional factor that Ruff 'N' Tumble's creators did incorporate was a series of high-up and low-down keys that unlocked barriers to areas where their hero's lost marbles could be found. "Generally there was a very linear line through the levels," acknowledges Jason, "and we wanted to get the player going high up. Similarly, we also wanted players going underground, be that sub-aqua or down into





[Amiga] Stages involving inventive mechanics like rock blasting are typical of Ruff 'N' Tumble's imaginative design.





» [Amiga] Ruff 'N' Tumble's intense firefights are not for the faint hearted.

» Jason Perkins is the managing director of the award-winning UK games publisher Curve Digital.

IN THE KNOW

» **PUBLISHER:** RENEGADE SOFTWARE

» **DEVELOPER:** JASON PERKINS AND ROBIN LEVY

» **RELEASED:** 1994

» **PLATFORM:** AMIGA

» **GENRE:** RUN-AND-GUN

DEVELOPER HIGHLIGHTS

THING ON A SPRING
SYSTEM: C64
YEAR: 1985

ARMALYTE
SYSTEM: C64
YEAR: 1988

LAST NINJA 3
SYSTEM: C64, VARIOUS
YEAR: 1991

"It was quite clear that we weren't where we should be"

Jason Perkins

cave-y depths. So we used keys, and a marble count, to encourage the player to explore a bit."

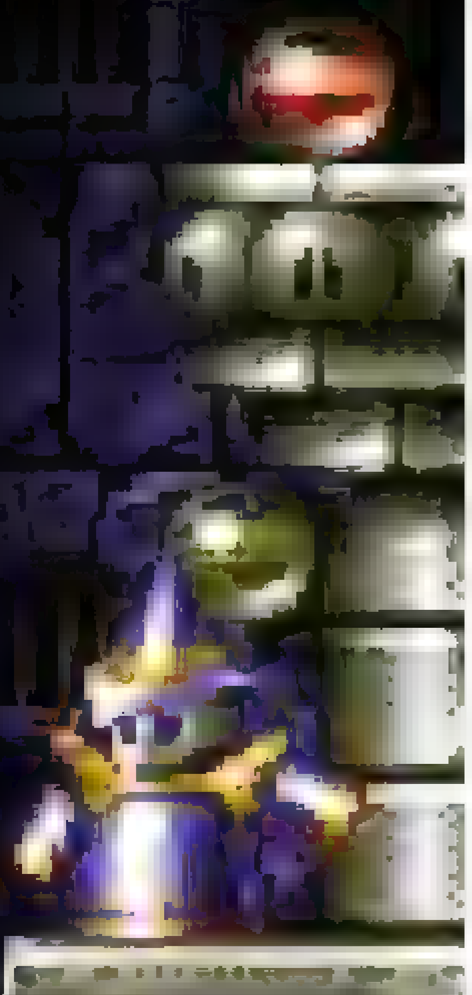
However, a byproduct of Jason and Robin focusing on the mechanics in their game's first two worlds was that their project was falling behind schedule, which led to Ruff 'N' Tumble's third world – the Tinhead Factory – being entrusted to a contractor. "It got difficult about ten months into it where it was quite clear that we weren't where we should be," Jason concedes, "and so Herman Serrano came in on a short-term contract, but he was coming from a different style of design. He was briefed that it was very much a platform shooter, and so to add in all of those kinds of elements to his world, but then it also got Rob's final pass over it."

As a result of Herman's design and Robin's playtesting the Tinhead Factory involved some extremely challenging firefights, although Ruff 'N' Tumble's medieval fourth world was equally hard thanks to Robin incorporating numerous chain-link platforms. "The chain-link platforms were something that we played around with really early on," remembers Jason. "It was another thing coming out of Sonic. We had a variety, some of which were just spinning all of the time and some that swung to a certain point. The flow of those platforms came from Mario on the SNES. So it was just throwing a little bit of that level design into Ruff."

In keeping with Ruff 'N' Tumble's previous three worlds, Robin's castle-themed finale ended with an epic boss, although this was scaled back due to time constraints. "The helicopter boss was the last bit of the game that I worked on, and I was very tired by that stage," Jason admits. "Rob's original plan was to have something bigger that you shot bits off, and then the last part would have been the helicopter. But in the end it was really rushed."

Concessions aside, Ruff 'N' Tumble's designers duly completed their game and Renegade got it into shops soon after, but the unfortunate collapse of Commodore shortly before the game's release soured retailers on Amiga software. "Generally, the reviews were good; we were getting eights and nines," Jason beams. "Unfortunately, the sales figures Renegade shared with us weren't strong. I think that was probably down to the demise of Commodore."

In looking back at his classic, Jason offers some tweaks before saying he's still proud of his work. "I'd make it more balanced so it's not so punishing when you're using the basic machine gun" Jason muses, "but then I'd make it less easy if you're ramping up your weapons. I would also like the bosses and the Tinheads to be closer to Rob's vision. But I'm very proud of the game. It was critically acclaimed, although it sadly didn't perform commercially. But hey, ho. It wasn't the first game to do that and it won't be the last." ★



MAR

MASTER OF SPIN-

Exclusive excerpt from

The Book of Mario

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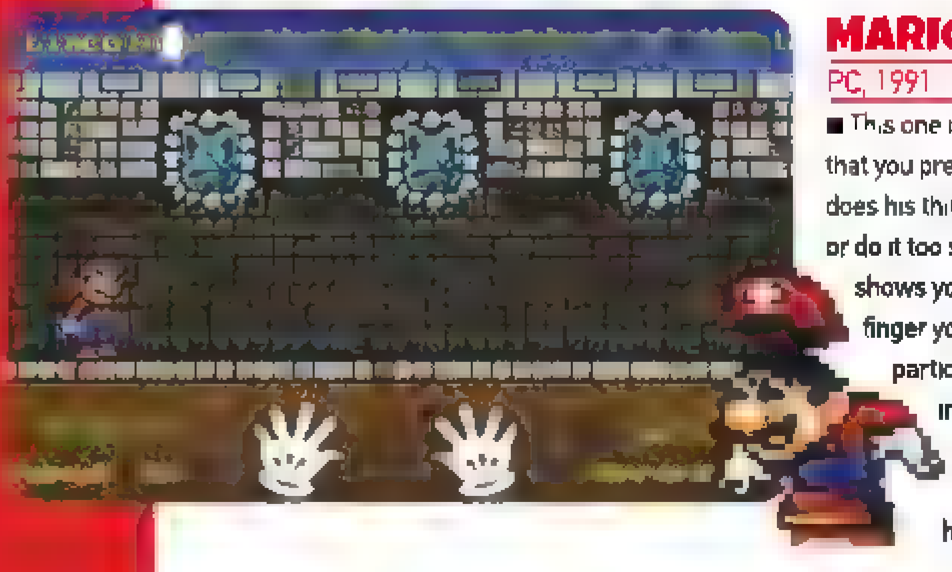
10 -OFFS

That Mario sure is a talented scamp. His day job as a plumber might be relatively unremarkable, but besides that and being [illegible] of the Mushroom Kingdom, [illegible] good professional [illegible] doctor, though his habit of throwing pills at the problem suggests that he might be single-handedly responsible for [illegible]

What's remarkable is that Mario [illegible] while other gaming stars struggle to establish meaningful spin-offs, Mario's many spin-offs often live up to the quality of his main platform adventures. Some of them even spawned very successful franchises in their own right. With that in mind, let's take a look at Mario's non-platforming outings from start to finish!

EDUCATIONAL GAMES



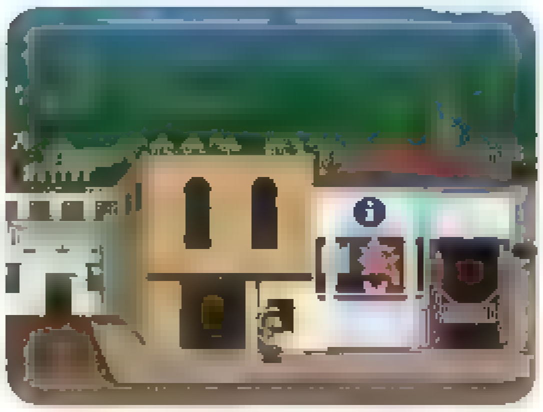
MARIO TEACHES TYPING

PC, 1991

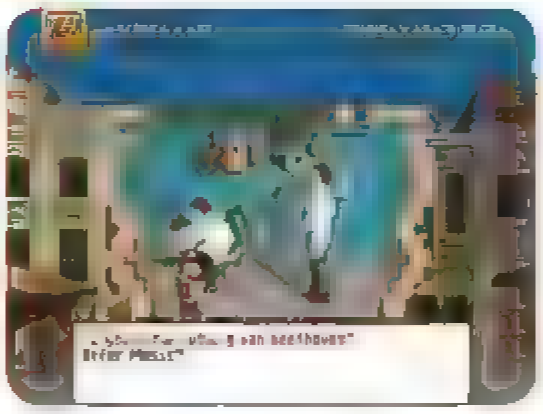
■ This one is a pretty simple affair – the idea is that you press keys on your keyboard, and Mario does his thing until such time as you do it wrong or do it too slowly. Additionally, the program shows you correct form, so you know which finger you're supposed to be using for any particular key. You'll be hopping on Koopas in one lesson and dodging Thwomps in the next. Bizarrely, this appears to be the first game in which Mario is heard to speak. Who'd have thought?

MARIO IS MISSING!

PC/SNES/NES, 1992



■ So here's something interesting – a starring role for Luigi, as his brother has been kidnapped. In order to enact a rescue of his beloved sibling, he'll need to defeat Bowser by… learning about the world's great cities? This doesn't quite make sense. Annoyingly, this game sets a trend amongst the educational Mario games – using *Super Mario World's* look and music, but failing to do so correctly. Given that these were officially licensed games, you'd think Nintendo would give the poor old developers the source assets they needed!



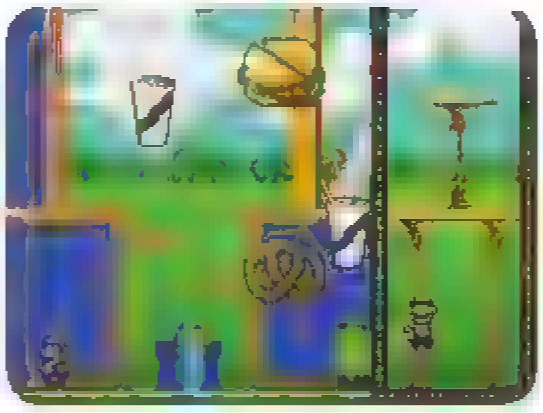
MARIO'S TIME MACHINE

PC/SNES/NES, 1993

■ That dastardly Bowser has gone and travelled through time to steal a variety of historical artefacts. Why? To create his own private museum, of course. Unfortunately, this act will change the course of history in untold ways, so Mario decides to go back in time and return the exhibits to their rightful owners. The time travel is achieved through a rather neat Mode 7 section in which you're tasked with collecting mushrooms, adding a slight bit of excitement before the game settles into *Mario Is Missing!*-style drudgery.

MARIO'S EARLY YEARS! PRESCHOOL FUN

PC/SNES, 1994



■ This odd little game consists of a variety of activities, such as comparing opposites and hearing sounds. You point at a cow, press the button, it says "moo" – scintillating stuff, wouldn't you agree? In a neat touch, the instructions are conveyed via speech rather than text, as the designers clearly realised that most of the game's target audience would not be able to read. It's not a lot of fun for anyone above the age of five, but then it's not exactly meant for you anyway, is it?

THE REST...

I Am A Teacher: Super Mario Sweater (1986) | **Mario's Early Years: Fun With Letters** (1993) | **Mario's Early Years: Fun With Numbers** (1994) | **Mario Teaches Typing 2** (1996)

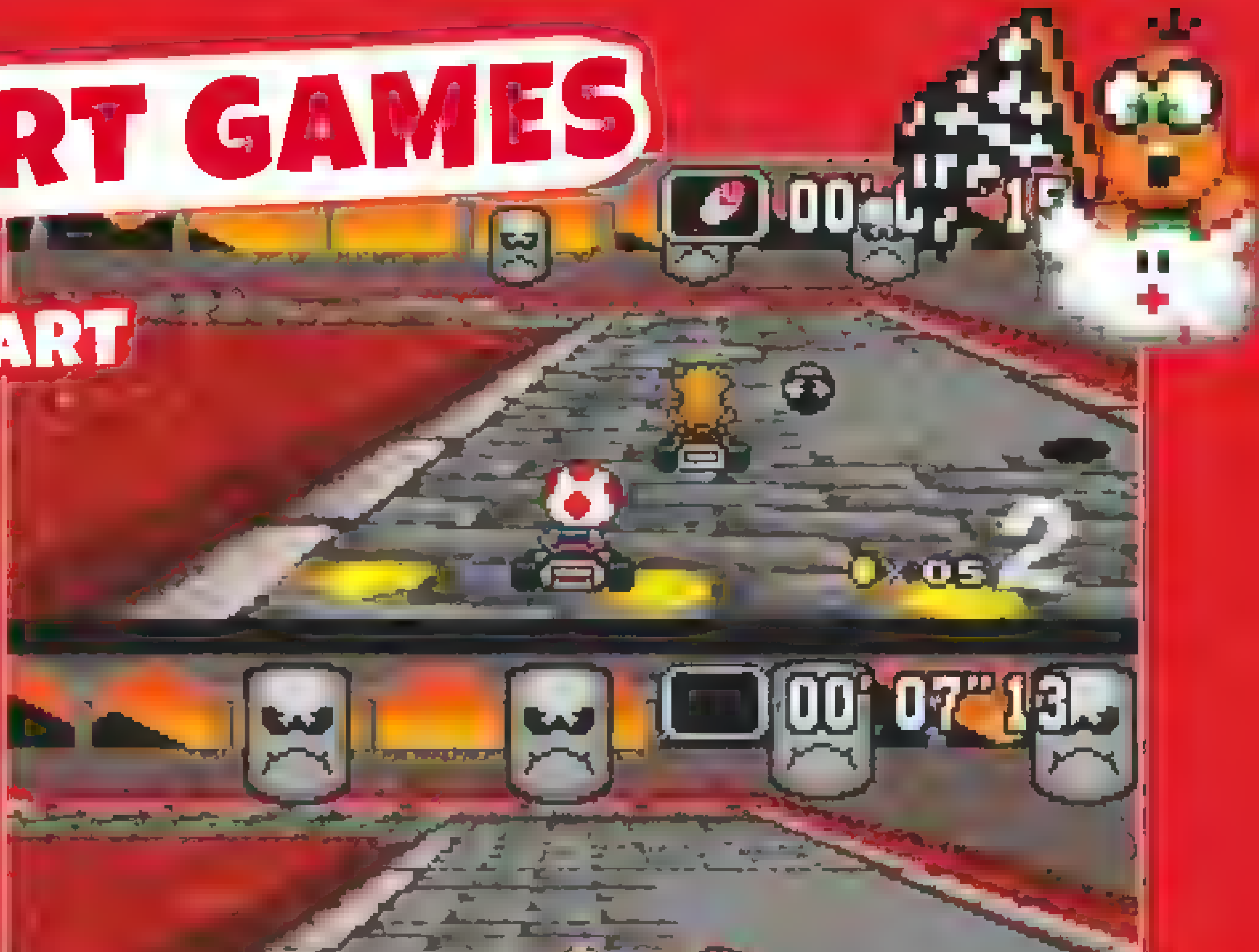
MARIO KART GAMES

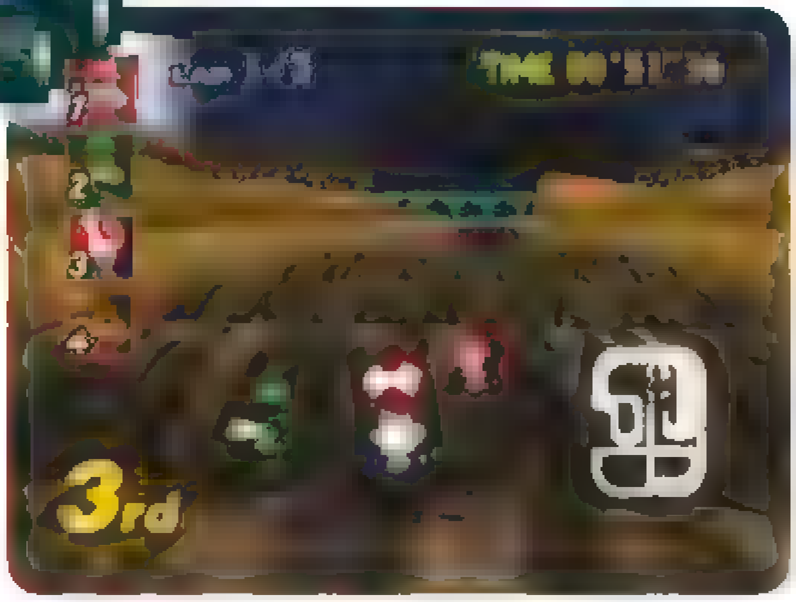
SUPER MARIO KART

SNES, 1992

■ Was *Super Mario Kart* meant to be a *Mario* game? No – originally, Nintendo was trying to make a multiplayer *F-Zero* game. Still, what it came up with was nothing short of sublime. At the time, the pseudo-3D Mode 7 tracks were state of the art, but there was much more to the game's appeal than a flashy graphical technique.

So much of what makes *Mario Kart* games great was established right here at the start of the series. Most of the weapons have become mainstays, from the shells and bananas to the invincibility star. The little hop when you hit a shoulder button to slide is in there too, and the traditional super-tough Rainbow Road finale is right there. In fact, some purists will tell you that this game is the best in the series and everything else is unnecessary fluff – and sometimes, they can be pretty convincing.





MARIO KART 64

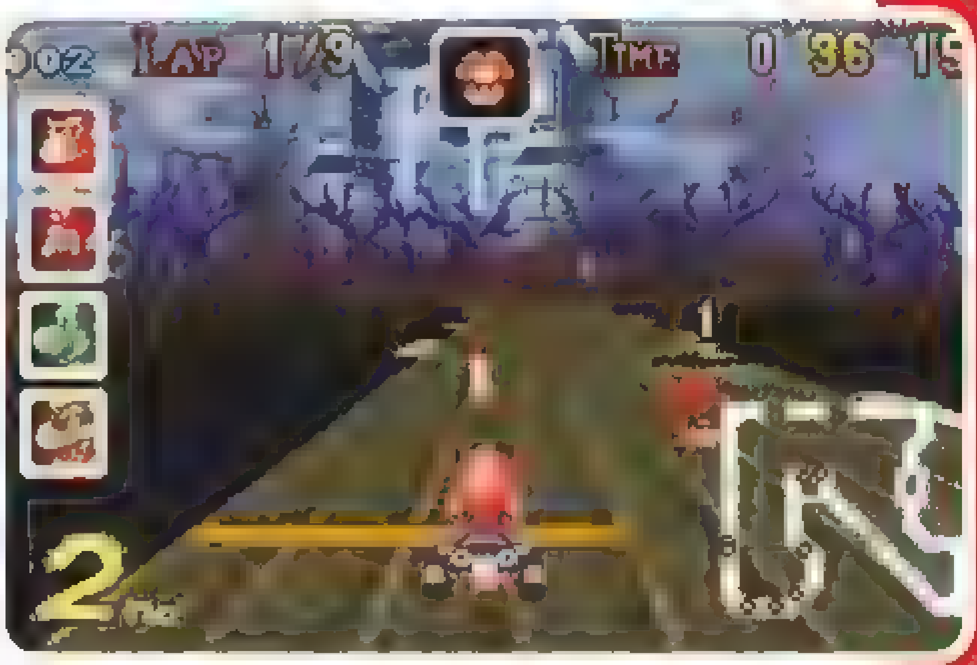
N64, 1996

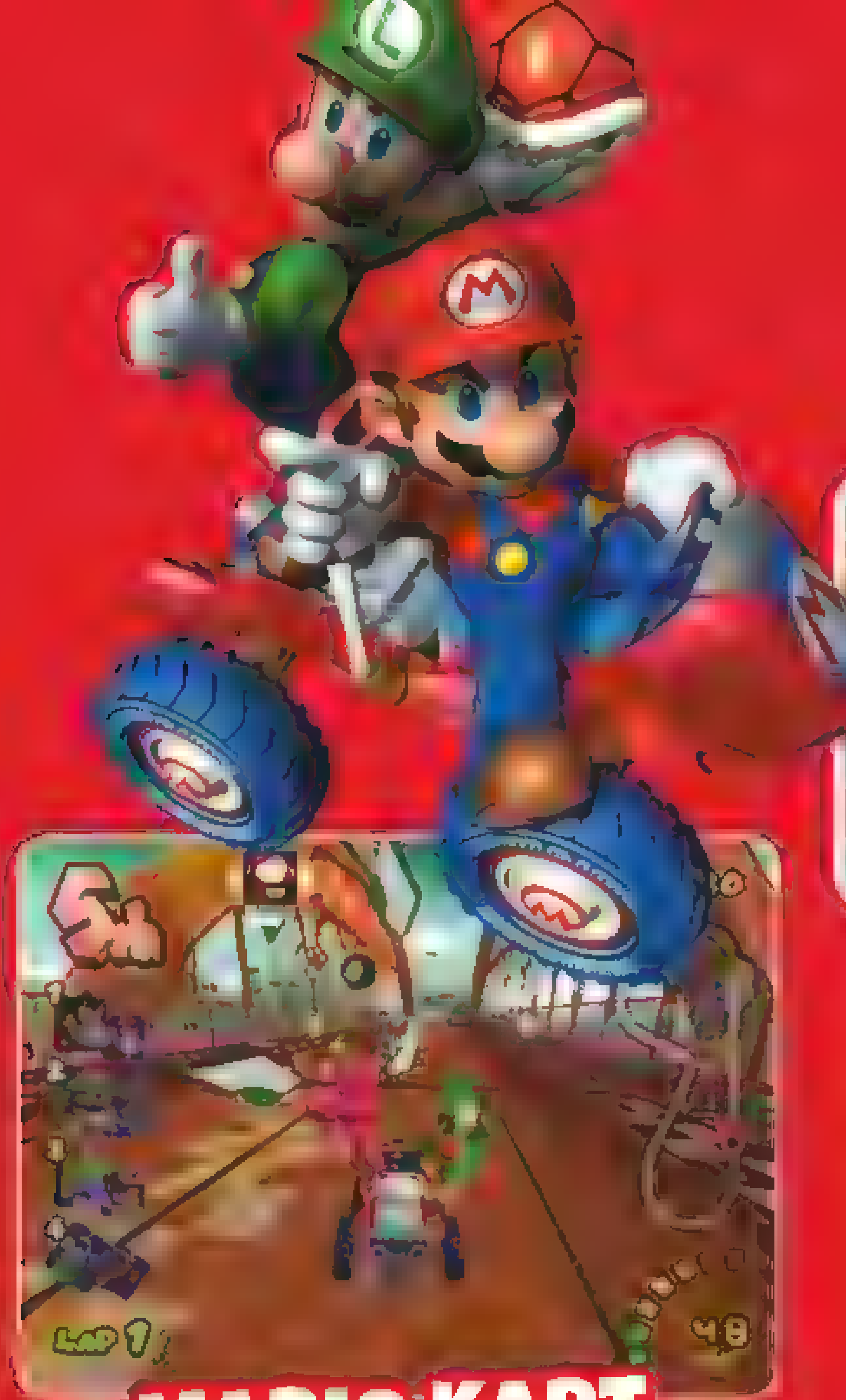
■ The first *Mario Kart* sequel was in full 3D, which enabled a design revolution – suddenly, big hills and crazy jumps became common track features. This gave rise to some incredibly atmospheric tracks like Bowser's Castle, but also allowed for some of the scummiest behaviour in *Mario Kart* history. If you've ever used the Rainbow Road shortcut or lightning bolted your friends during the Wario Stadium jump, you'll know what we mean. The N64's four control ports made multiplayer races even more frantic, and the new leader-seeking Blue Shell item would become an iconic (and divisive) part of the series for good.

MARIO'S KART: SUPER CIRCUIT

GAME BOY ADVANCE, 2001

■ Nintendo's new handheld needed something to show off its power and just as Mode 7 tracks had wowed console gamers a decade prior on the SNES, they impressed GBA players in *Mario Kart Super Circuit*. Rather than simply converting the SNES classic, Nintendo created a whole new game with improved visuals and an original set of tracks (you could also unlock the original SNES tracks). There were few other new features, but they weren't really needed. The best mode here was single-cartridge link play – with just one copy of the game, a group of players with Game Boy Advance systems could get in on the fun.

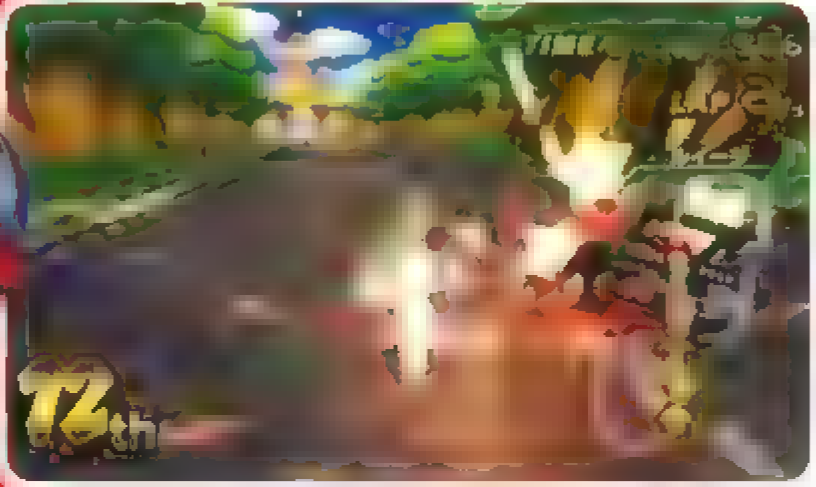




MARIO KART DOUBLE DASH!!

GAMECUBE, 2003

■ This oddball entry in the series introduced a dual-driver [illegible]



MARIO KART WII

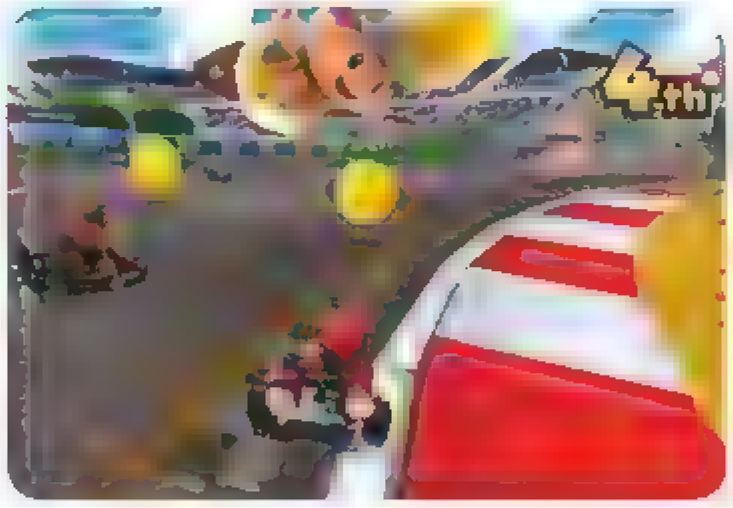
WII, 2008

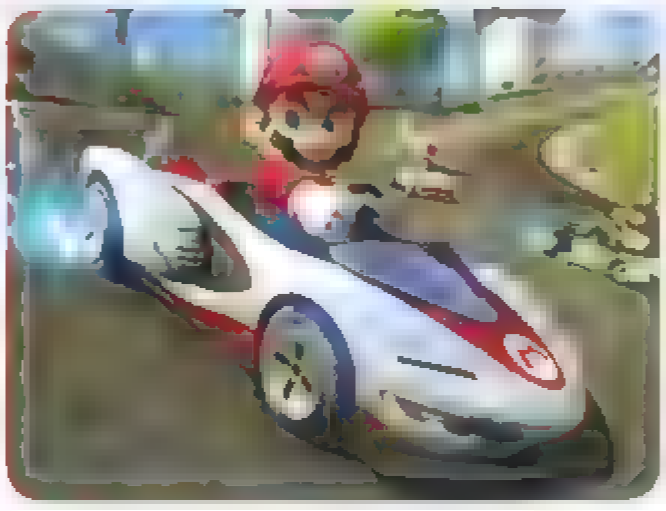
■ This entry in the series is the best selling one of the lot, but it can be a little bit divisive. The tracks are wide to accommodate the expanded field of 12 racers, lots of crazy new power-ups have been added, and the game marks the debut of motorbikes as a playable vehicle type. Additionally, the emphasis on drifting for speed boosts has been reduced. It's still a hoot in multiplayer, but unlocking everything can be a bit of a chore.

MARIO KART 7

3DS, 2011

■ The third handheld *Mario Kart* makes some interesting changes to the formula, thanks in part to new codeveloper Retro Studios. The racing now cuts across land, air and sea as karts have gained the ability to glide and even drive underwater – and even the retro courses have been rebuilt with these abilities in mind. You're also expected to build your kart from a few components, each affecting a number of key stats including speed, acceleration, weight and grip.

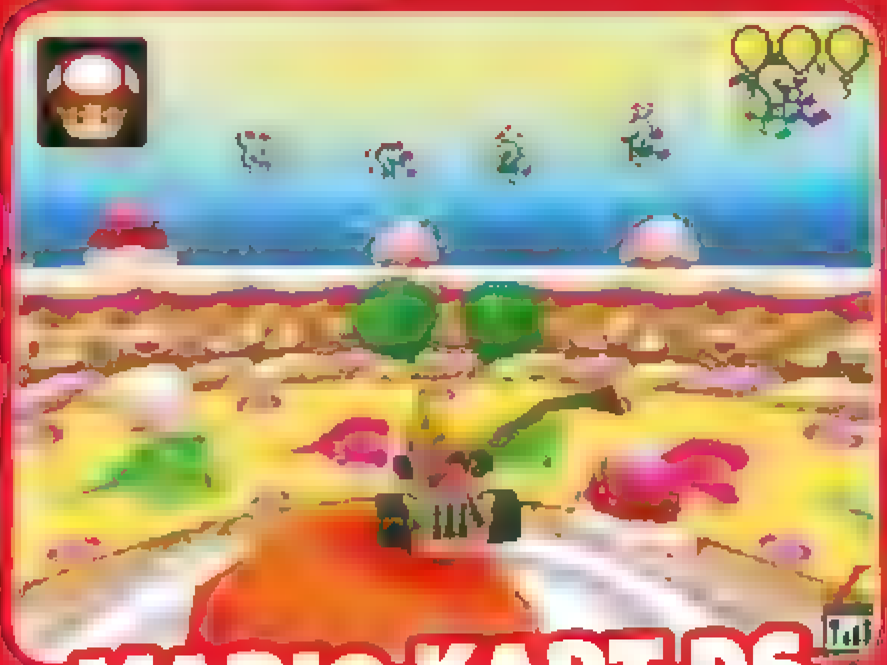




MARIO KART 8

WII U, 2014

■ New anti-gravity vehicles allowed *Mario Kart 8* to include twisting, looping tracks of a kind more closely associated with *F-Zero*. It was also the first game in the series to support DLC, which featured a range of classic Nintendo properties including *The Legend Of Zelda*, *Excitebike* and – yes – *F-Zero*. Unfortunately, the Battle Mode was a little bit underwhelming, but that didn't stop it becoming the best-selling Wii U game ever, bought by over 50 per cent of console owners.



MARIO KART DS

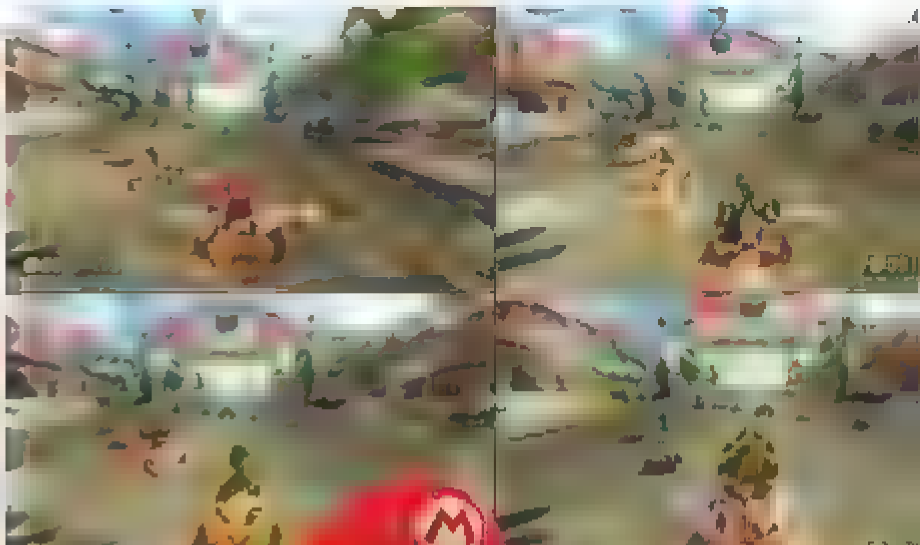
DS, 2005

■ A selection of great new 3D courses was given equal [illegible]

MARIO KART 8 DELUXE

SWITCH, 2017

■ The most recent Mario Kart game is an enhanced version of *Mario Kart 8*, featuring all of the Wii U version's DLC content and everything unlocked by default. There are also new racers including the Inklings from *Splatoon*, and the classic Battle Mode returns with five different rule sets. It's already one of the best-selling games for the Switch, no doubt due to how well it fits with the system's pop-up multiplayer ethos.



THE REST...

Mario Kart Arcade GP (200[illegible]
Mario Kart Arcade GP 2 (200[illegible]
Mario Kart Arcade GP DX (201[illegible]
Mario Kart Arcade GP VR (20[illegible]

MARIO PARTY GAMES

COM
x78
x0
2nd
COM
x78
x0
2nd
3
COM
START!

MARIO PARTY

N64, 1998

■ When Nintendo first unleashed this Hudson Soft [illegible]

COM
x0
x10
COM
x0
x2
x0
x10
COM
x0
x10

MARIO PARTY 2

N64, 1999

■ This sequel had two big ideas: firstly, remove anything that might get Nintendo sued by its consumers. Secondly, add items for an extra wrinkle in the gameplay. Items can be bought, won or stolen and have a range of effects when used on the board. For example, the mushroom and golden mushroom give you extra dice rolls per turn, while the Bowser Suit allows you to bully some coins out of any player you pass on the board. These were a welcome introduction to the series, and have become as much a staple of it as the minigames.

MARIO PARTY 4

GAMECUBE, 2002

■ The first 'next-gen' *Mario Party* game included a lot of new stuff, including six new 3D boards and the Extra Room, in which Whomp and Thwomp provide new spins on existing minigames. The trade-off is that the game has the fewest minigames since the original, although the power of the GameCube does allow it to look rather lovely by the standards of the day. Despite the aggressive pushing of the series threatening to fatigue consumers, the move to the new platform helped considerably with sales – where *Mario Party 3* only broke a million copies, *Mario Party 4* did rather better with over 2 million copies sold.

05
36
01
02
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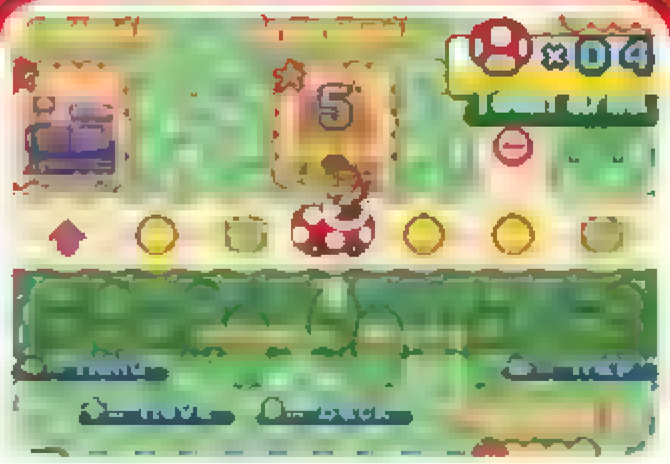
MARIO PARTY 6

GAMECUBE, 2004

■ As well as being the first game in the series to push past the 80 minigame mark, *Mario Party 6* is notable for its introduction of minigames using the bundled GameCube microphone peripheral – a gimmick that would carry over to its sequel the next year.



MARIO PARTY ADVANCE

GAME BOY ADVANCE, 2005

■ We're as surprised as anyone that it took Nintendo so very long to bring such a clearly popular franchise across to its handheld platform. Due to the power of the platform, designers were not able to use 3D visuals, which worked to the detriment of the minigames included. Luckily, with the Game Boy Advance already on the way out thanks to the DS by this point, that wouldn't be a problem down the line.

MARIO PARTY 8

WII, 2007

■ The Wii's appeal to casual gamers was the perfect vehicle to sell more copies of *Mario Party* – and, indeed, *Mario Party 8* sold a massive 7.6 million copies (although its UK launch saw the game briefly withdrawn due to the use of the word 'spastic'). Perhaps unsurprisingly, motion controls made their debut in the series with this entry, and would remain a fixture during the Wii era.

MARIO PARTY: DS

DS, 2007

■ Would you be surprised to learn that quite a few of the [illegible]

MARIO PARTY: THE TOP 100

3DS, 2017

■ The most recent release in the *Mari*[illegible] *Mario Party* to *Mario Party 10* [illegible] various gimmicks employed [illegible] required some tweaks [illegible] games which [illegible] There's only a single [illegible] Minigame Island [illegible] provides you with [illegible] and one that's [illegible] of the games [illegible]

MARIO PARTY 10

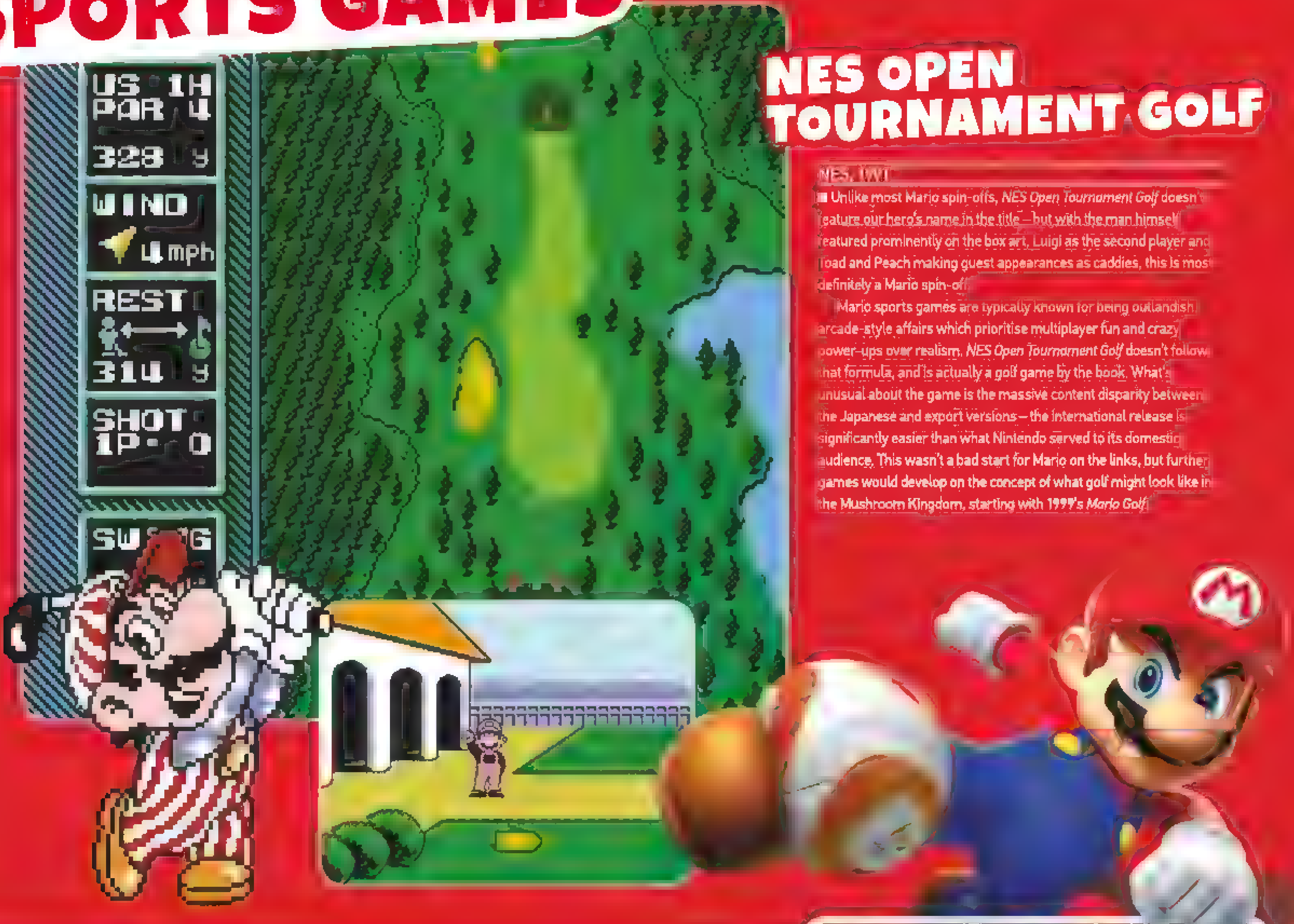
WII U, 2015

■ The only Wii U [illegible] *Mario Party* [illegible]

THE REST...

Mario Party [illegible] | *Mario Party* [illegible] | *Mario Party* [illegible]
Mario Party [illegible] | *Mario Party* [illegible] | *Mario Party: Island Tour* [illegible]
Mario Party: Star Rush [illegible] | *Super Mario Party* [illegible]

SPORTS GAMES

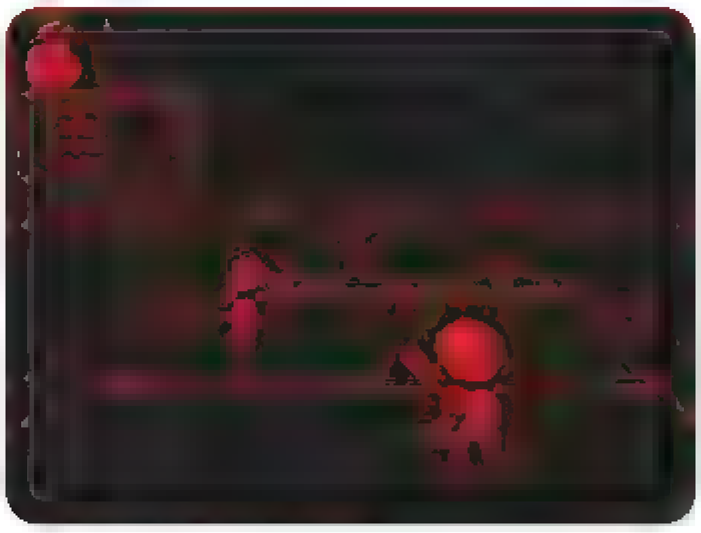


NES OPEN TOURNAMENT GOLF

NES, 1991

■ Unlike most Mario spin-offs, *NES Open Tournament Golf* doesn't feature our hero's name in the title – but with the man himself featured prominently on the box art, Luigi as the second player and Toad and Peach making guest appearances as caddies, this is most definitely a Mario spin-off.

Mario sports games are typically known for being outlandish, arcade-style affairs which prioritise multiplayer fun and crazy power-ups over realism. *NES Open Tournament Golf* doesn't follow that formula, and is actually a golf game by the book. What's unusual about the game is the massive content disparity between the Japanese and export versions – the international release is significantly easier than what Nintendo served to its domestic audience. This wasn't a bad start for Mario on the links, but further games would develop on the concept of what golf might look like in the Mushroom Kingdom, starting with 1999's *Mario Golf*.



MARIO'S TENNIS

VIRTUAL BOY, 1995

■ Much like *NES Open Tournament Golf*, *Mario's Tennis* serves as an early precursor to a sub-series that would develop a much more distinct identity of its own. *Mario's Tennis* is a fairly straightforward game featuring almost all of the characters from *Super Mario Kart*, using a low camera angle that's only viable because of the Virtual Boy's simulation of depth. Unfortunately, the key appeal of Mario sports spin-offs is often their multiplayer modes, and *Mario's Tennis* doesn't have one because the Virtual Boy never had an official way to play multiplayer games

MARIO SUPERSTAR BASEBALL

GAMECUBE, 2005

■ After years of success with golf and tennis, Mario started to move into new sports towards the end of the GameCube era. This take on baseball sees Mario and friends bring their Star Skills, power-up items can be bought from a shop, and stadiums even have their own hazards such as Piranha Plants that can send the ball in all kinds of crazy directions. The game also has a variety of minigames to keep things spicy if you get bored of regular baseball. Reviews were moderately positive, with the average score falling roughly between *Edge*'s 6/10 and *Nintendo Power*'s 9/10.

SUPER MARIO STRIKERS

GAMECUBE, 2005

■ If you've ever longed to see football without a referee and haven't yet discovered the joys of certain non-league organisations, *Super Mario Strikers* is the game for you. Without fouls, you can rough up the opposition a bit; without drug testing, power-ups can give you an unfair advantage. Of course, we haven't even touched on the 'super shot' that counts for two goals instead of one, or the fact that games can't end in a draw. *Nintendo Power* gave the game 7.5/10 when they reviewed it, and that reflects the critical consensus on this game well

COINS
3
COINS
3
TIME
20:81

MARIO SLAM BASKETBALL

DS, 2006

■ Square Enix developed this spin-off, which features a [illegible]

MARIO & SONIC AT THE OLYMPIC GAMES

WII/DS, 2007

■ Mario teams [illegible]

MARIO & SONIC AT THE OLYMPIC WINTER GAMES

WII/DS, 2009

■ Mario and his old rival once again get into the Olympic spirit, only now with considerably more sliding involved. This time around, the additional 'Dream Event' roster is much larger and covers decidedly non-sporting events such as snowball fighting, which makes for great fun even if it's not officially sanctioned. Like the original game, both the home console and handheld versions are worthwhile if you have to choose.

MARIO SPORTS MIX

WII, 2010

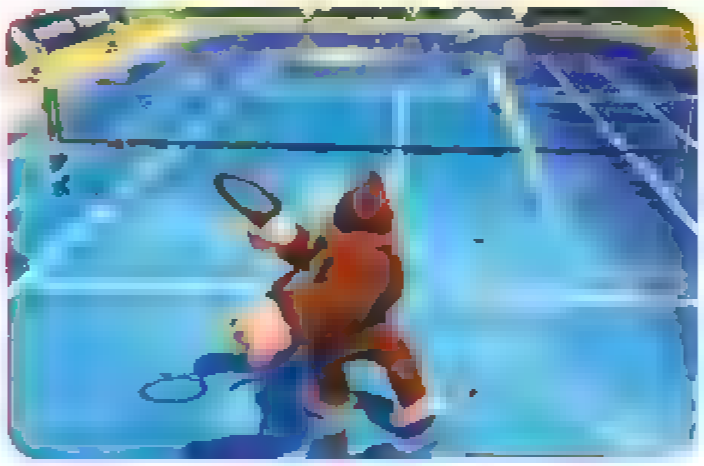
■ This game collects four sports that don't have their own mainline series – basketball, volleyball, hockey and dodgeball. Square Enix handled development duties, returning from its previous basketball outing, but delivered a game that received mediocre scores from the critics. Most of these games haven't been seen in Mario form since.

MARIO GOLF WORLD TOUR

3DS, 2014

■ The most recent Mario Golf game fully embraces what makes Mario sports games fun, with a crazy power-up enabled mode joining the more standard (if still decidedly arcadey) main game. We particularly like hitting a shot such that it enters a pipe, only to be forcefully ejected out!

This burns through leaves and thick grass!



MARIO TENNIS: ULTRA SMASH

WII U, 2015

■ Despite the presence of ice courts, mega mushrooms and everyone's favourite character Daisy, the Wii U entry in the *Mario Tennis* series failed to live up to expectations, as the solid fundamentals were let down by a lack of game modes.

MARIO SPORTS SUPERSTARS

3DS, 2017

■ Codeveloped by Bandai Namco and Camelot, this game compiles the existing tennis, golf, baseball and football gameplay developed previously, and adds some horse racing for good measure. This jack of all trades mastered none and received average reviews as a result.

THE REST...

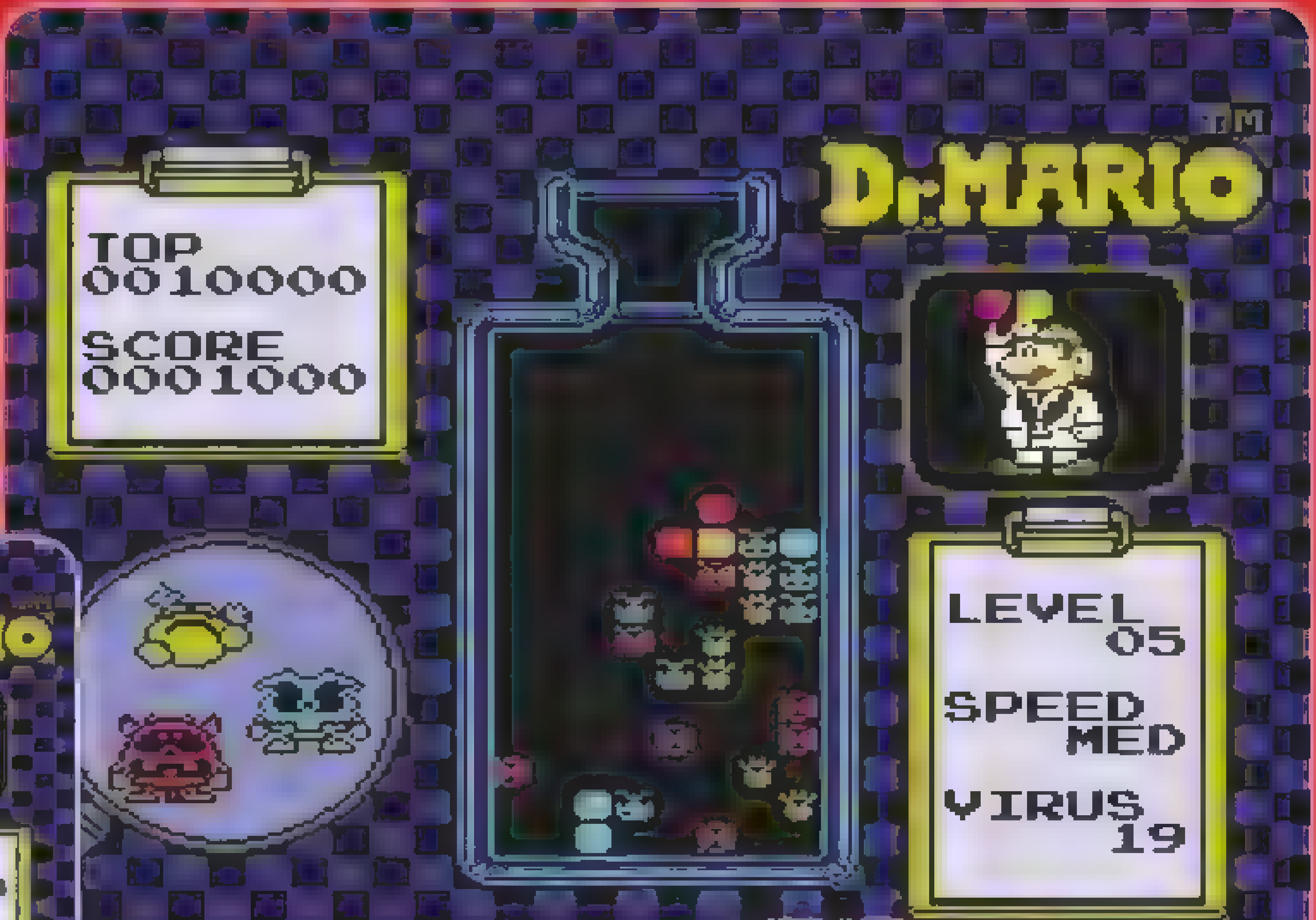
Mario Golf (1999) | **Mario Tennis** (2000) | **Mario Golf: Toadstool Tour** (2003) | **Mario Golf: Advance Tour** (2004) | **Mario Power Tennis** (2004) | **Mario Tennis: Power Tour** (2005) | **Mario Strikers Charged** (2007) | **Mario Super Sluggers** (2008) | **Mario & Sonic At The London 2012 Olympic Games** (2011) | **Mario Tennis Open** (2012) | **Mario & Sonic At The Sochi 2014 Olympic Winter Games** (2013) | **Mario & Sonic At The Rio 2016 Olympic Games** (2016) | **Mario Tennis Aces** (2018)

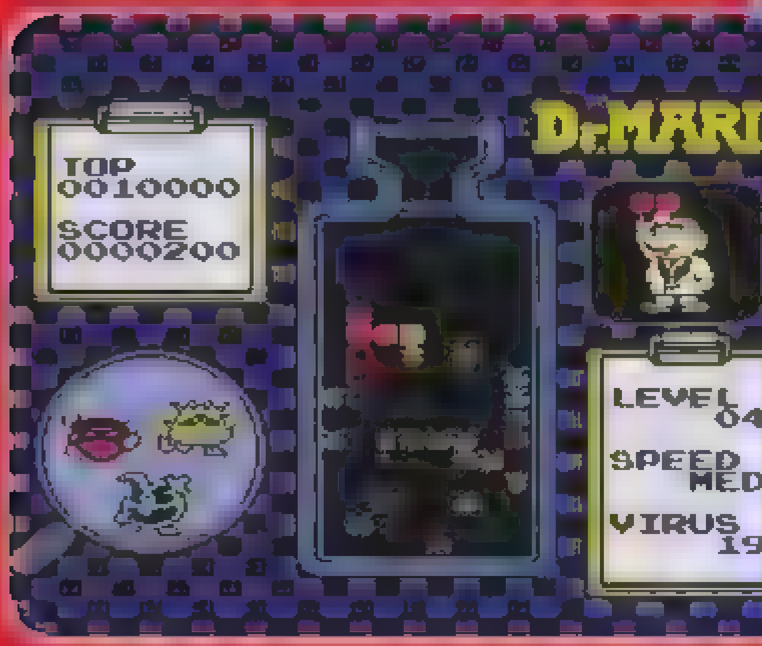
MISCELLANEOUS

DR MARIO

NES, 1990

■ As the Eighties came to a close, falling-block puzzle games were all the rage – and Nintendo knew that well, making truckloads of cash off the back of *Tetris* on the Game Boy. Unsurprisingly, the company wanted more of that particular market and designed a block puzzle of its own. Pills fall from the top of the bottle, and you have to mix matching coloured halves with the germs that lurk inside. Link enough of them together and you'll beat the bug – clear all the bugs and you win. We remember this best for its annoyingly infectious music.





HOTEL MARIO

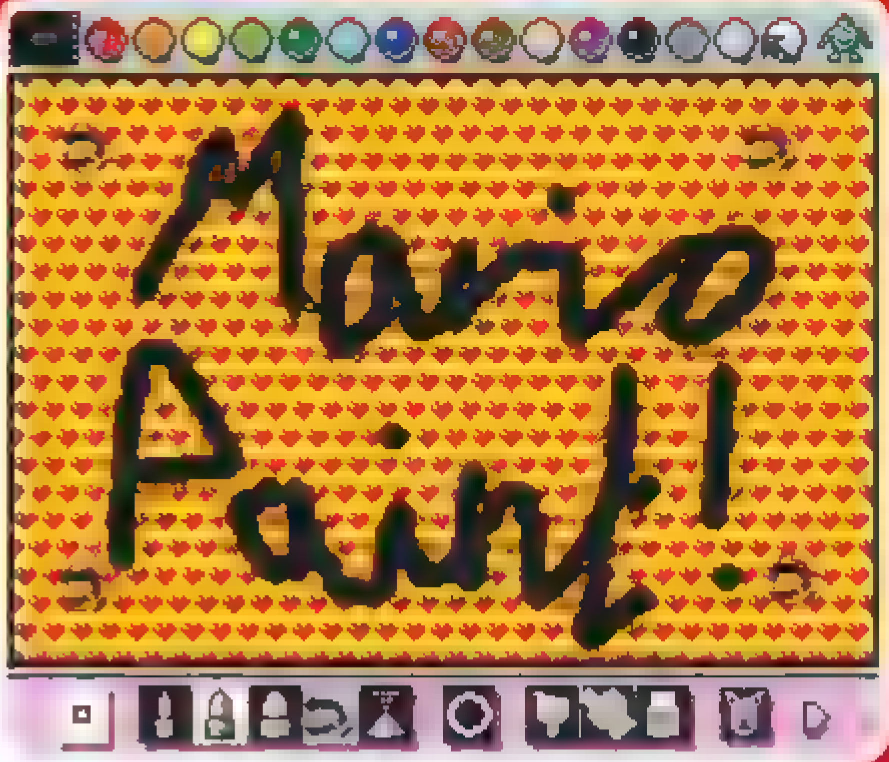
CD-I, 1994

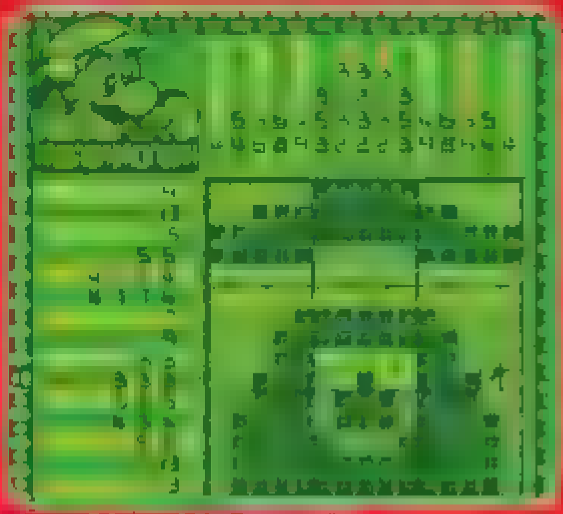
■ This puzzle game was developed as a result of the failed Nintendo/Philips SNES CD-ROM contract, for Philips' machine rather than Nintendo's. It's not quite as bad as the internet might have you believe, but few things are – it's still far from the greatness of most *Mario* games, though.

MARIO PAINT

SNES, 1992

■ This art package came bundled with the SNES mouse, and could be used to create some beautiful animated images, which players were encouraged to record onto VHS tape for posterity. However, while the artistic tools were certainly impressive for their time, this game achieved longevity with the fans for an unexpected reason – its music composition tool. Its simplicity and flexibility were unprecedented on consoles, introducing many players worldwide to music creation. As a result, you can still find *Mario Paint* covers of many popular songs online today, and fans produced a standalone unofficial version of the composer.

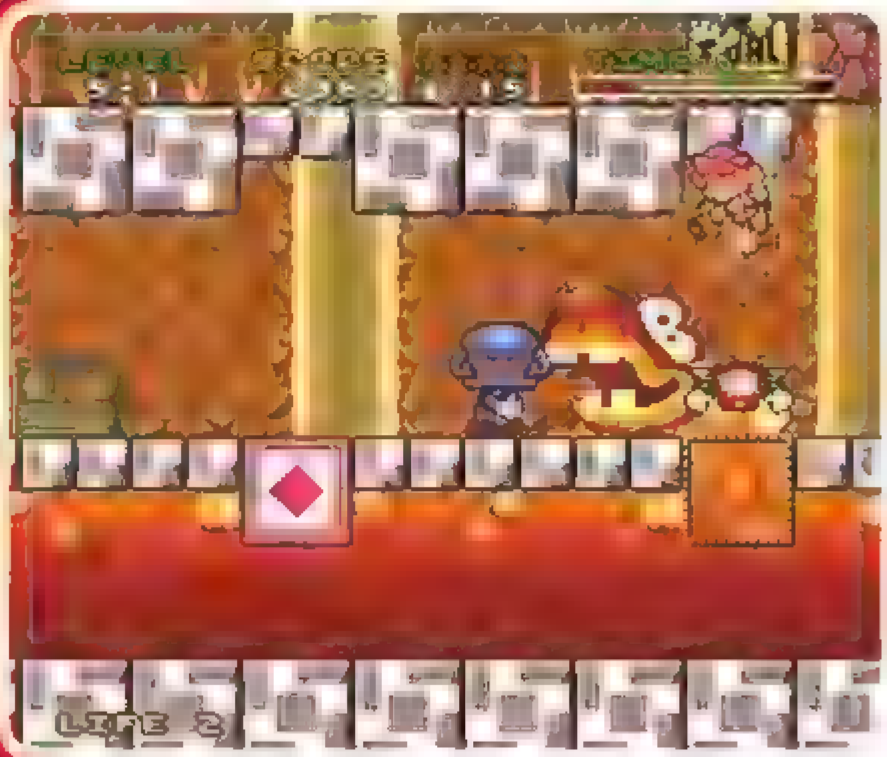




MARIO'S PICROSS

GAME BOY, 1995

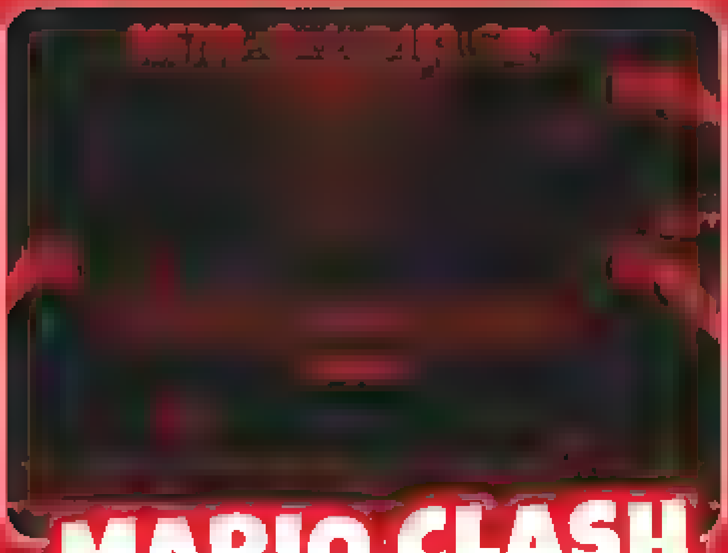
■ This logic picture puzzle doesn't necessarily have a great deal to do with Mario in practice, but it's so good that we can't resist highlighting it whenever we can. Look at the numbers, work out which squares to fill in, make a little image. Relaxing? Only if you make no mistakes.



MARIO & WARIO

SNES, 1993

■ A few years before hitting the big-time with the *Pokemon* series, Satoshi Tajiri and the team at Game Freak designed this rather fabulous puzzle game. It vaguely resembles *Lemmings*, in that you're charged with protecting a character that is oblivious to all danger (in this case because Wario has blinded him), but instead of changing Mario's actions, you change the environment around him to grant him safe passage. It's a real shame that this game wasn't ever released outside of Japan, but if you get the chance to try it we urge you to take it – it's an overlooked *Mario* gem.



MARIO CLASH

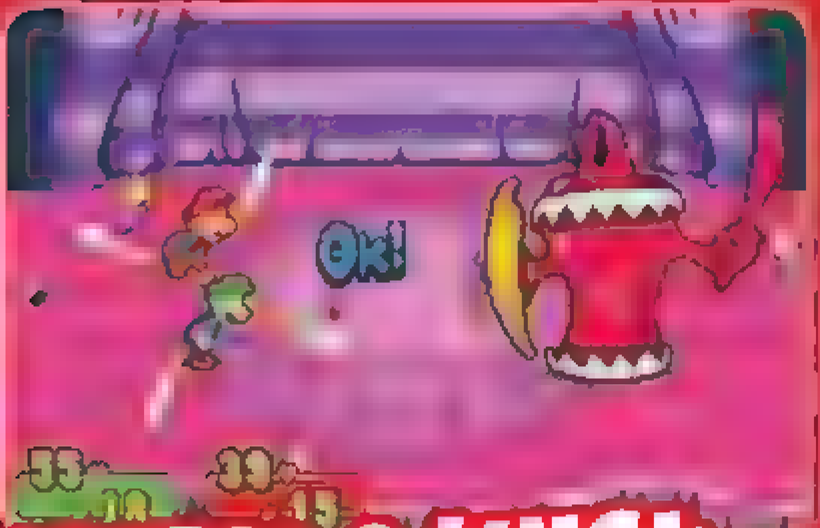
VIRTUAL BOY, 1995

■ This single-screen action game is based on Mario's [illegible]

SUPER MARIO RPG: LEGEND OF THE SEVEN STARS

SNES, 1996

■ You'd imagine a game with *Super Mario World*'s characters [illegible]



MARIO & LUIGI: SUPERSTAR SAGA

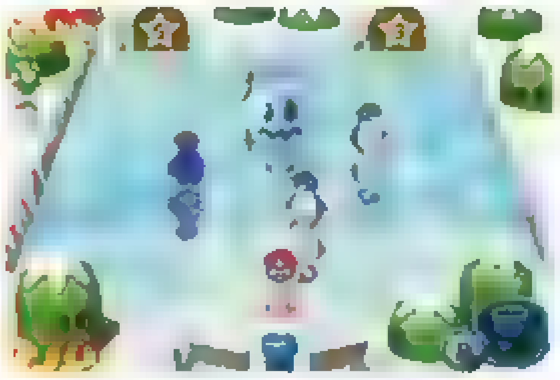
GAME BOY ADVANCE, 2003

■ After finding success with both *Super Mario RPG* and *Paper* [illegible]

MARIO VS DONKEY KONG

GAME BOY ADVANCE, 2004

■ Spinning off from the Donkey Kong and Mario series, this puzzle game in which you direct Mini-Marios is a successor to the Game Boy *Donkey Kong* game released in the mid-Nineties. It became a big success, spinning off a number of sequels of its own on Nintendo's handheld platforms.



SUPER MARIO BALL

GAME BOY ADVANCE, 2004

■ Sonic was in a semi-decent pinball game because he already curled up into a ball – that's what hedgehogs do, after all. Mario, not content to be outdone by his rival, spent a decade learning to curl into a ball so he could star in a semi-decent pinball game too.

DANCE DANCE REVOLUTION: MARIO MIX

GAMECUBE, 2005

■ Konami seems to have felt that its popular music game series needed a bit more Nintendo love for its GameCube incarnation, so it came up with a track list almost entirely comprised of memorable themes from older Mario games.

PUZZLE & DRAGONS Z + SUPER MARIO BROS. EDITION

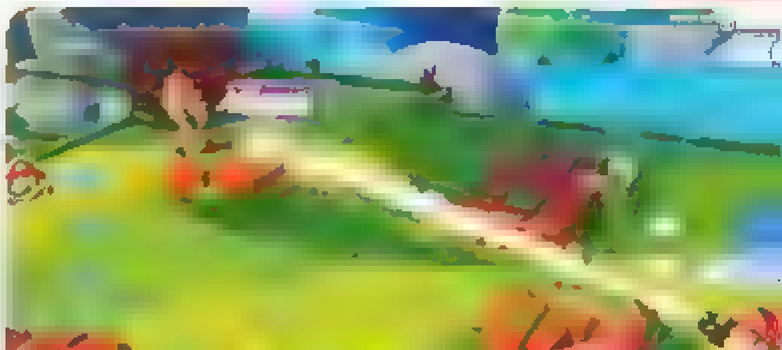
3DS, 2015

■ *Puzzle & Dragons* was a mobile phenomenon, so it was a natural fit to bring over to the 3DS – and while you're doing that, why not stick the world's most famous plumber in the mix too? So they did.

MARIO & RABBIDS: KINGDOM BATTLE

SWITCH, 2017

■ We had absolutely no idea what a crossover game between Mario and the *Rayman*-derived Rabbids would be like, and we were very surprised when it turned out to be a strategy game. It was also a surprise year-one gem for Switch.



THE REST...

Wrecking Crew (1985) | **Tetris & Dr Mario** (1994)
Mario's Super Picross (1995) | **Mario's Game Gallery** (1995)
Excitebike: Bun Bun Mario Battle Stadium (1997)
Wrecking Crew '98 (1998) | **Dr Mario 64** (2001)
Mario & Luigi: Partners In Time (2005) | **Dr Mario Online Rx** (2008)
Dr Mario Express (2009) | **Mario & Luigi: Bowser's Inside Story** (2009)
Mario & Luigi: Dream Team (2013) | **Dr Luigi** (2013)
Dr Mario: Miracle Cure (2015) | **Mario & Luigi: Paper Jam** (2015)
Mario & Luigi: Bowser's Inside Story + Bowser Jr.'s Journey (2018)

Super Metroid

RIDLEY ME THIS

RETRO REVIVAL

» SNES » 1994 » NINTENDO

We often talk about the games that had formative experiences on us growing up. Final Fantasy VII is one of mine, Nick has Sonic, Sam Croc and Darran Dizzy. But I often think about games that I wish I played growing up, games that I yearn to have had an impact on me as a kid. Persona 4 came out when I was the same age of its protagonists, for example, and experiencing it then, instead of when I was 23, would've helped me relate to its characters on a personal level, rather than a nostalgic one. One of the bigger What Ifs for me, however, is Super Metroid.

Super Metroid is the best example of atmosphere in a 16-bit game. Nothing beats it. From those opening moments, exploring the derelict ship in search of the Metroid specimen, to the climatic showdown with Mother Brain, it's just oozing personality. It's dark, moody, epic and cool. I can't sing its praises enough.

I started playing games at an early age, and I can't imagine what Super Metroid might've done to my brain. Maybe it would've helped me get over my fear of the dark – though it's likely it would've scared the living daylights out of me. It would've certainly showed me how massively rewarding exploration-based games could be – something I did not experience until playing Resident Evil on the PlayStation.

It's not that I think that playing Super Metroid back then would have fundamentally altered my personality or anything. I'd probably still have the same tastes in games and other media as I do now, though that appetite might've matured sooner – which'd mean I'd have skipped out on blunders like Bugs Bunny: Lost In Time for something like, say, Symphony Of The Night.

I polled the **RG** team to see if any of them feel the same way, and I drew up three bemused faces. I can't be alone, though. I'm curious to hear if any of you view any games in the same way I see Super Metroid. So please do write us in at retrogamer@futurenet.com and we might share our favourite musings in our Mailbag section. ★

ULTIMATE GUIDE:

GALAXY FORCE

It's not one of Sega's best known arcade games but Galaxy Force is easily one of its most impressive, and it still stands up today, 30 years on from its release. Join us as we revisit the Y-Board tour de force

Words by Martyn Carroll

When writing about retro games it's very easy to get wrapped up in the technical details. This is particularly true when your focus is something as cutting edge as Sega's 'Super Scaler' series. From Hang-On to Space Harrier, to Out Run to After Burner, each subsequent game ran on an updated version of the groundbreaking hardware. That meant more memory, more bandwidth, more sprites, more textures, more all-round whiz-bang. This culminated with the release of the Y-Board hardware in 1988.

» [Arcade] The beginning of each scene featured a different launch sequence.

Yet when you experienced Galaxy Force, the first game to showcase the Y-Board, none of the technical details mattered. You didn't know that the sprite scaling and zooming capabilities had been further enhanced and that real-time rotation effects were introduced for the first time. You didn't care how many graphical planes or colours were displayed on the screen, or whether it was powered by one, two or three CPUs. None of that mattered because it was perfectly clear from playing Galaxy Force that it was the most visually stunning and technically impressive arcade game that Sega – or indeed its competitors – had released up to that point.

The real showstopper was Planet Ashutar, the second of the game's six stages. This volcanic world saw you skimming lava lakes in your starfighter while dipping and weaving to avoid flaming meteors, molten eruptions and arcing flares. It was a genuine 'wow' moment. The very same year the opening stage of Gradius 2 (aka Vulcan Venture) did something thematically similar in 2D, but the immersive 3D effect of Galaxy Force elevated it far beyond rival shooters.

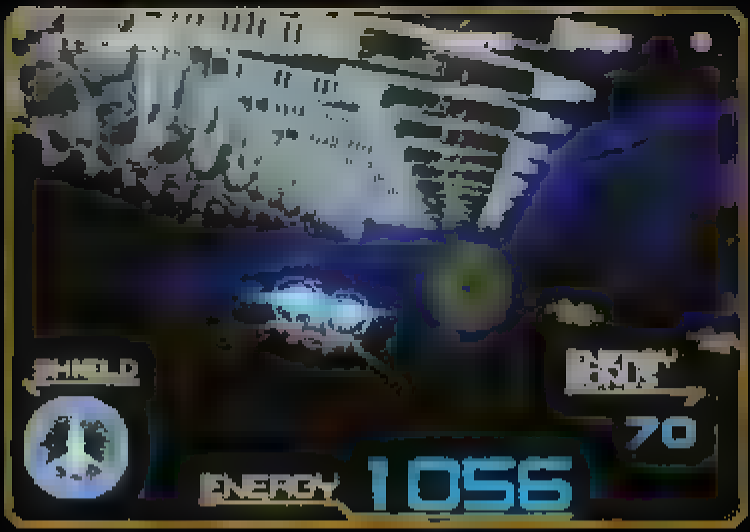
While Galaxy Force ramped up the visuals to 11, the gameplay wasn't far removed from previous Super Scaler games. The basic ▶

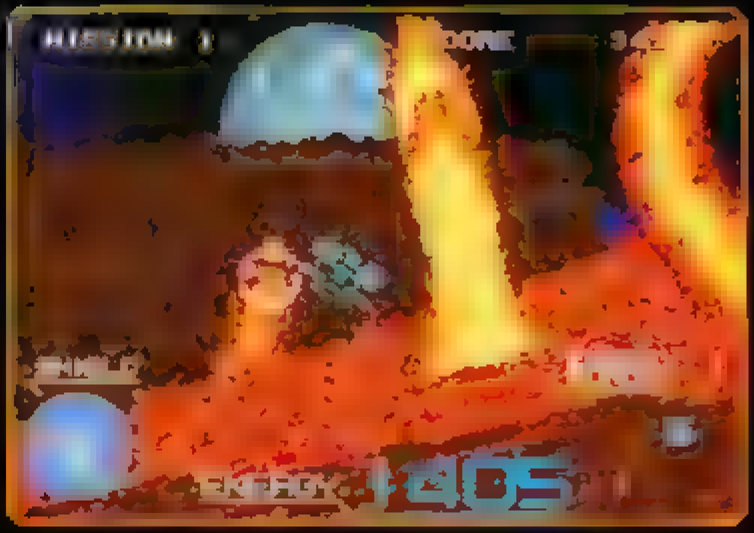
WORLDS OF GALAXY FORCE

The strange planets and odd places you visit on your mission

SCENE A: MEGALEON

Shades of *Star Wars* here as the scene begins with a dogfight in deep space before you venture inside the 'Man-Made World' and travel towards the control centre at its core. Although you can choose where you start, this is the default opening scene.



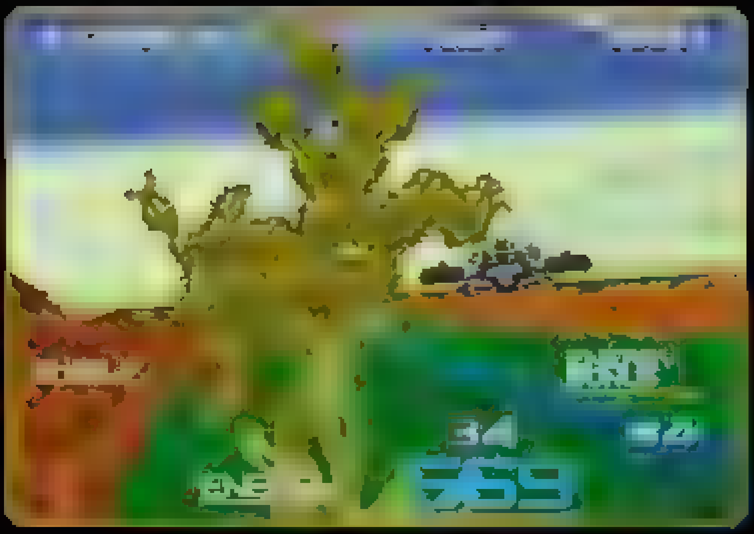


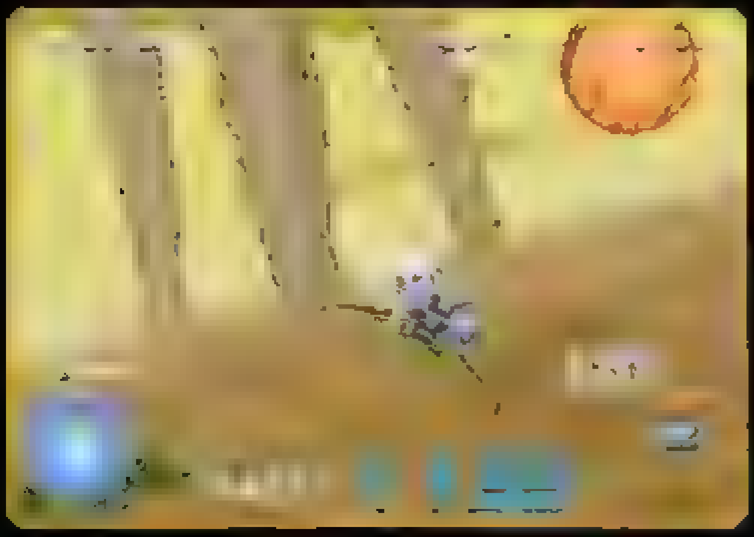
SCENE B: PLANET ASHUTAR

This is easily the most striking scene in the game, as the unstable volcanic planet spews lava into the burning atmosphere. Watch out for those flares – or are they fire dragons? You must successfully navigate two cave systems before you reach the control centre.

SCENE C: PLANET MALKLAND

The lush green world is home to some spectacular waterfalls and plant life. However one cactus-type planet grows before your eyes and tries to block your way. Some even weirder life forms populate the two fortresses you must carefully pilot your craft through.



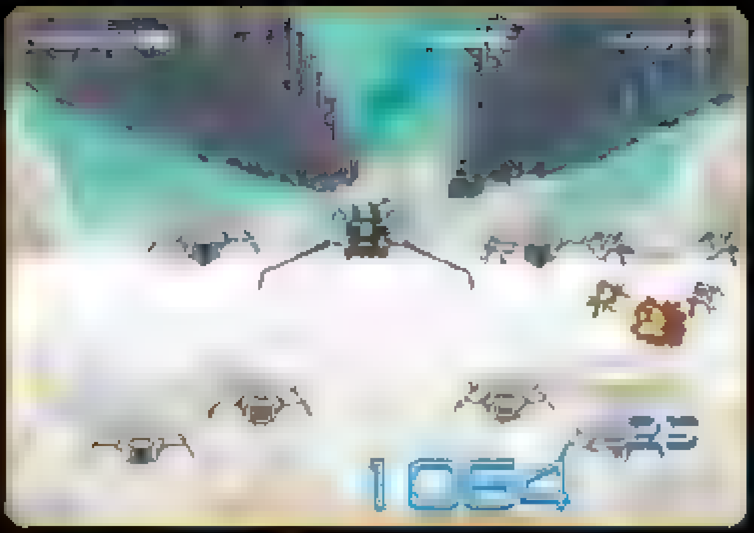


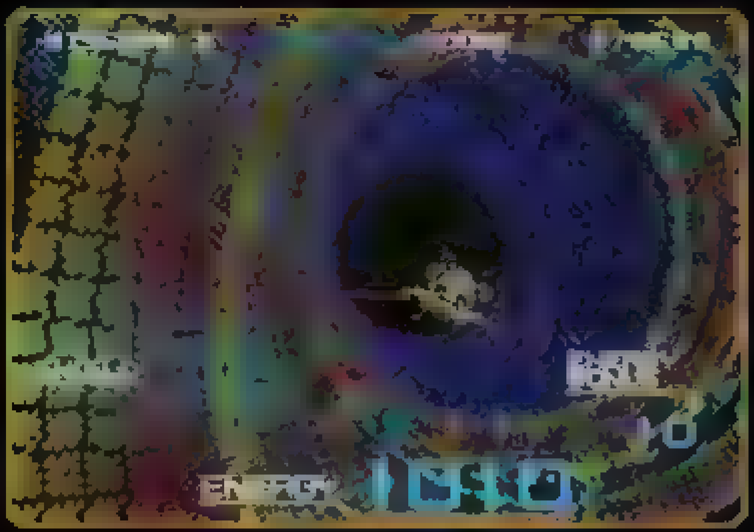
SCENE D: PLANET SARA

As you begin your attack on this barren, desert world you must avoid deadly dust devils before traversing a series of rocky outcrops. Inside the single cave system you'll encounter the usual fortifications along with snarling rock monsters and sneaky stalactites.

SCENE E: PLANET ORTHEA

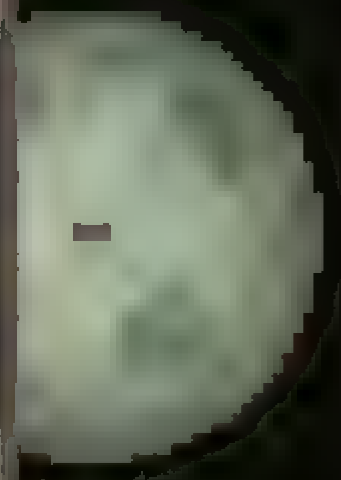
Also known as the cloud world. It looks serene, but behind the cloud bank lies dozens of enemy fighters and one huge destroyer. The cave systems are especially devious as they rise up and dip down as well as veer to the left and right. Try not to clip your wings.





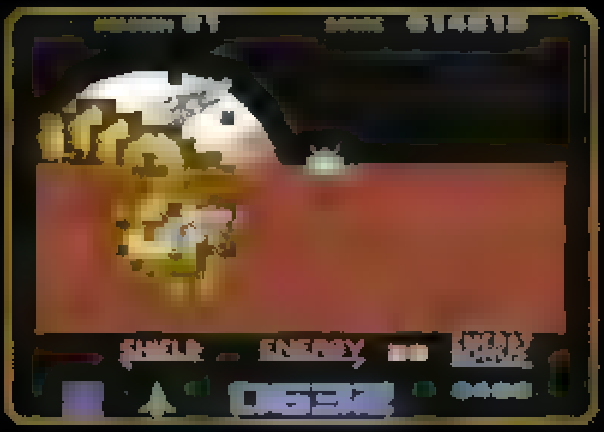
FINAL SCENE: HYPERSPACE

If you manage to successfully complete the five scenes, you'll unlock this sixth stage which begins with a tricky undulating tunnel that represents hyperspace. If you survive this you can initiate the final assault on the enemy HQ. Blow the core to finish the game.



CONVERSION CAPERS

Could any of the home versions come close to emulating the coin-op?

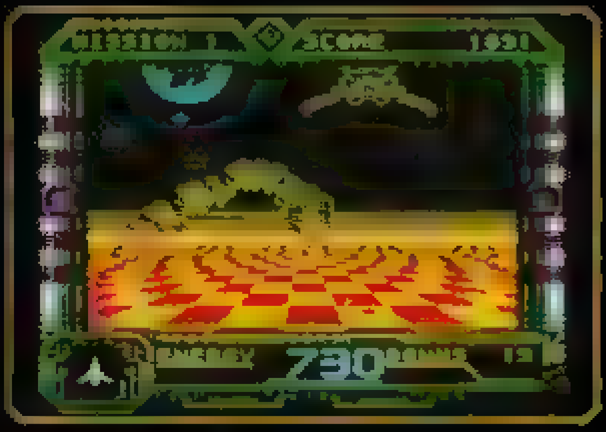


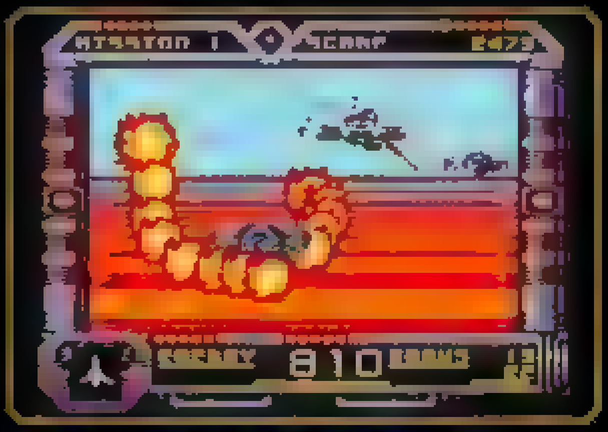
COMMODORE 64

The version of *Power Drift* showed that Y-Board games could work on the C64, but *Galaxy Force* sadly isn't in the same league. It's colourful, and sounds great, but it runs too quickly and the 3D effect is choppy and distracting. The multiload is particularly painful on tape, too.

ZX SPECTRUM

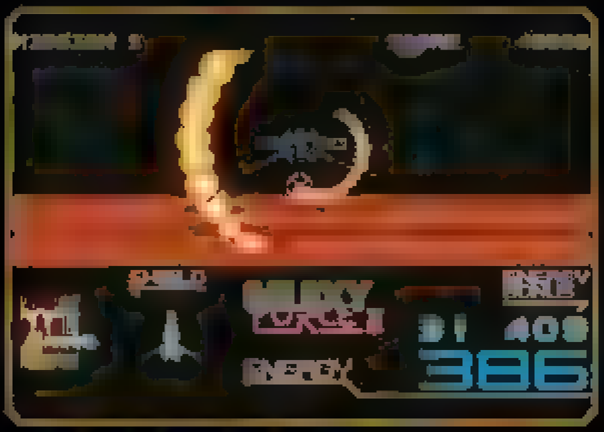
There was good pedigree behind this version. Keith Burkhill had already converted *Space Harrier* and *After Burner* to the ol' Speccy, but *Galaxy Force* was a step too far. It controls pretty well, but the visuals are so messy and chaotic that it quickly becomes a chore to play.





AMSTRAD CPC

Keith Burkhill also handled the Amstrad CPC version and the result was a clear cut above the Spectrum game. More on-screen colour means that everything is more defined, and the 3D effect is surprisingly fast and convincing. The only downside is the lack of in-game music.

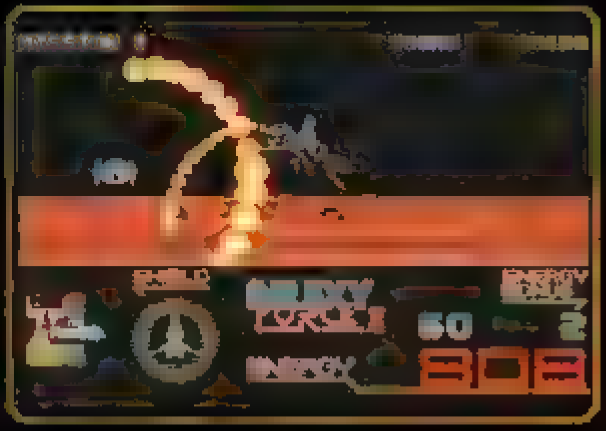


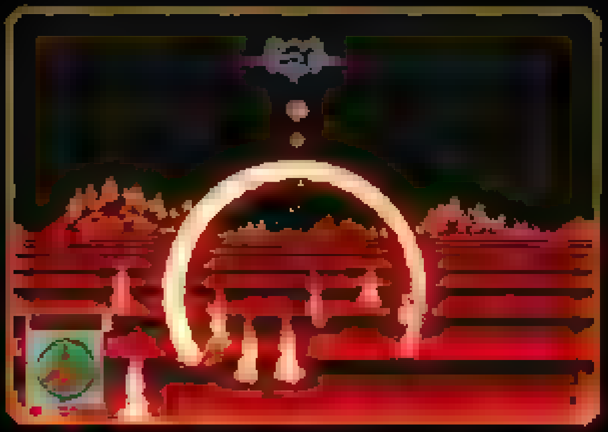
ATARI ST

Everything has been scaled back to make the game work on the 16-bit machine, and while it still resembles the coin-op, much of the fun and excitement has been lost in translation. It doesn't help that the pace is surprisingly sluggish, particularly in the tunnel sections.

AMIGA

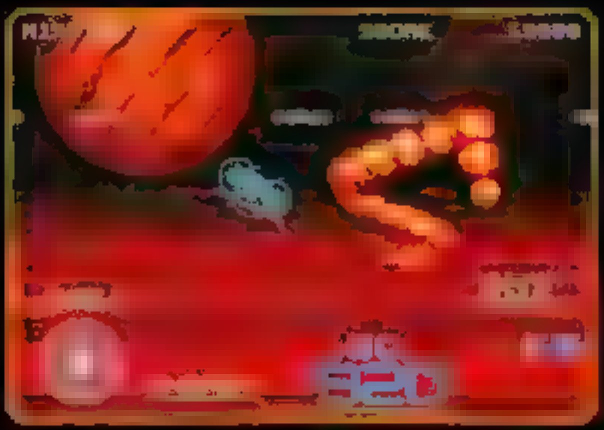
Like most Sega coin-op conversions this was based on the ST version and barely enhanced for the Amiga. Uncle Art's music sounds more dynamic, but if anything, the Amiga version suffers from a slightly poorer framerate. At least it's better than *After Burner* on the Amiga.





MASTER SYSTEM

This conversion is best described as 'loose', but that's no bad thing. There's no speed control or energy meter, and the 'cloud' planet is missing, but it plays really well and is technically impressive for a Mater System game. The final stage even adds a boss ship for you to annihilate.

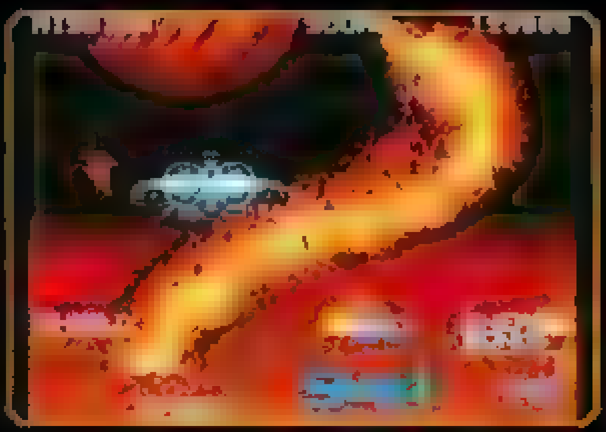


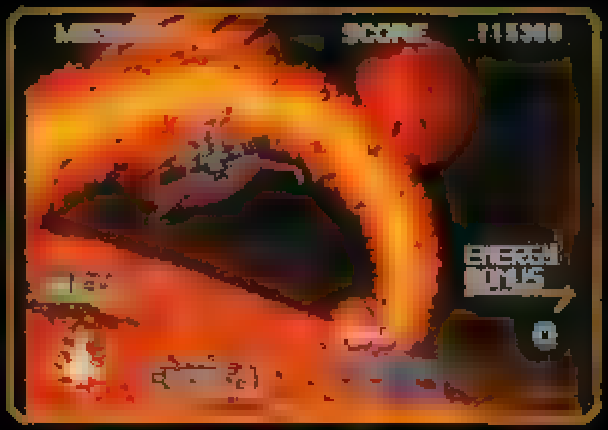
MEGA DRIVE

This arrived in 1991, three years after the coin-op, but the end result looks rushed. The graphics are good but the sprite animation and 3D effect are poor, especially the tunnel sections which look beyond basic. You're left feeling that the Mega Drive could do much better.

FM TOWNS

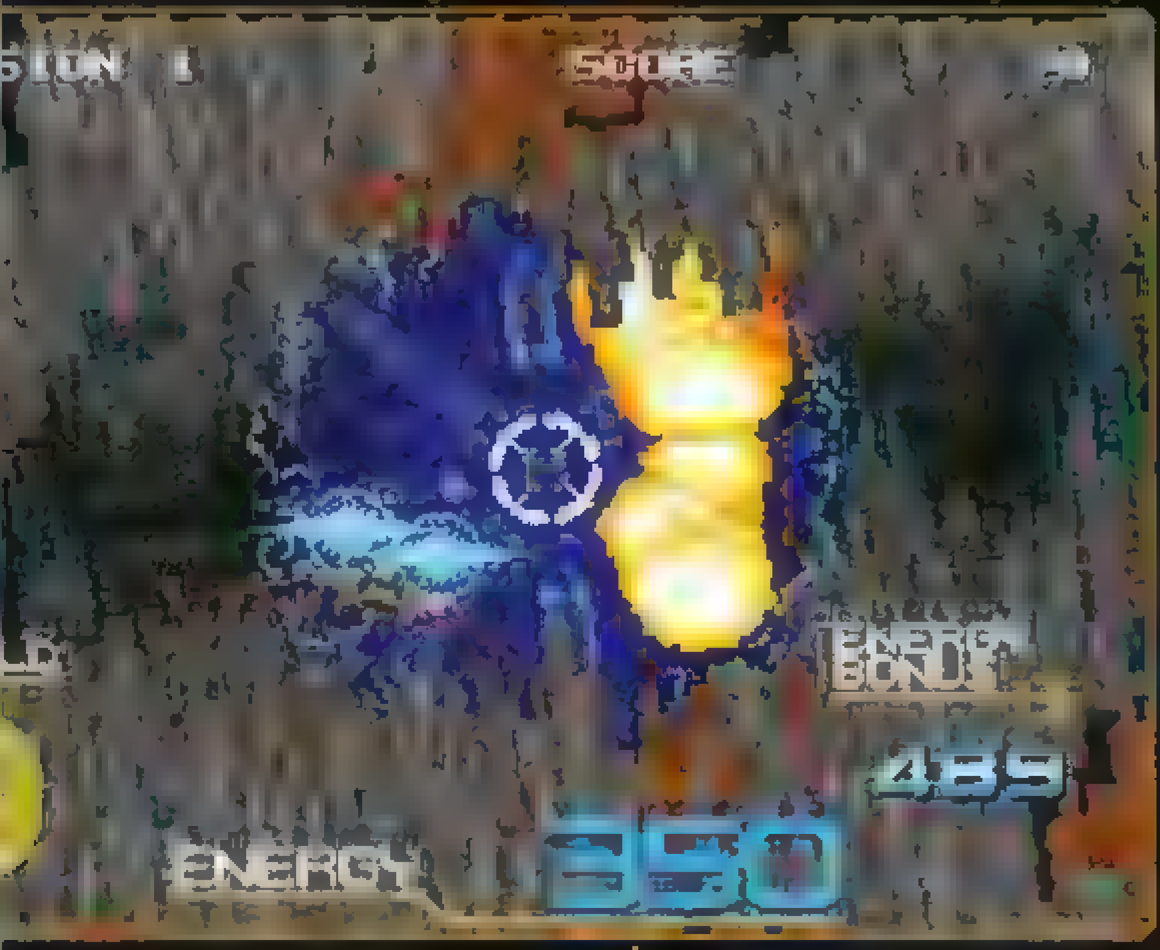
Released in 1991 on CD for the FM Towns computers (including the Marty console), this was easily the best version available – until the Saturn release arrived years later. The coin-op's rotational effects aren't replicated but it's otherwise very faithful. It features CD audio, too.





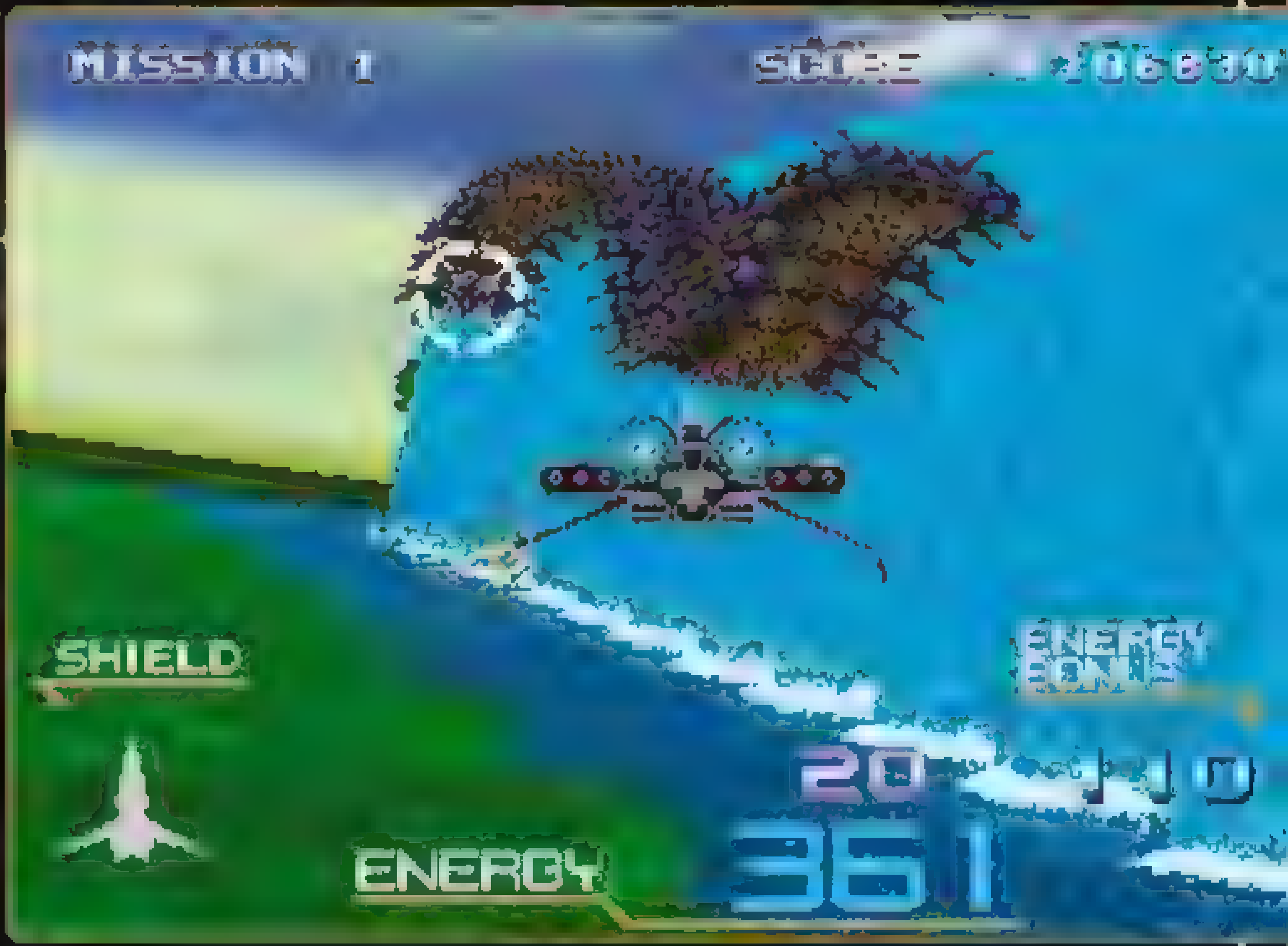
SATURN

This *Sega Ages* title was released exclusively in Japan in 1998. It only runs at 30fps so you can imagine that some Saturn owners would have expected more, but it's still a decent port that blows away the previous home versions. The game's backstory is included as a bonus.



» [Arcade] Blowing the core was clearly inspired by the climax of the Return Of The Jedi.

» [Arcade] This flying beastie looks like it has flown straight out of Space Harrier's Fantasy Zone.



▶ tactic of destroying close-up enemies with cannons and targeting distant ships with missiles was essentially the same as After Burner. However the overall pace of the game was slower that After Burner and it felt more measured, more like Thunder Blade. The stage structure also had more in common with the 'into the screen' sections of Thunder Blade. Each stage was a mix of exterior scenes, where the illusion of free movement was quite convincing, and contrasting 'fortress' sections where you had to carefully navigate a series of enclosed tunnels. Unlike Thunder Blade there was no boss at the end of each stage – just an exposed 'enemy core' to destroy.

Something else Galaxy Force had in common with After Burner was that the original version was almost immediately superseded by an improved version. In both cases Sega confused matters by adding a 'II' to the title, leading many arcadegoers to wonder what the hell happened to the original game. Galaxy Force II was not a distinct sequel, which is why most people (us included) choose to drop the numeral from the title.

The game was made available in a trio of different models and top of the range was the wildly excessive Super Deluxe Type. With a footprint of almost eight metres squared and weighing 400kg, this hydraulic-driven behemoth was more like a fairground ride than an arcade game. Once strapped into the 'cockpit', players viewed the game on a large 26-inch monitor while being spun 335 degrees to the left and right, and tilted up to 15 degrees. It was exhilarating – and expensive at £1 a go, at a time when many new games still cost 20p a credit. The Super Deluxe Type retailed for an eye-watering £17,000 so was reserved for arcade owners with deep pockets and plenty of floor space. For other operators more traditional sit-down and upright cabs were also available which displayed the game on a smaller 20-inch monitor.

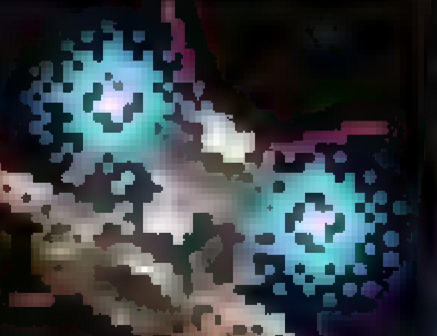
The Super Deluxe Type naturally made headlines when it first appeared. For its debut ▶

GALAXY FORCE 1.0

The brief story behind the aborted original version

When we talk about *Galaxy Force* we're technically talking about *Galaxy Force II*, an enhanced version of the original. Trying to discover the differences between the versions is tricky, because the original version only appeared briefly in Japan before Sega issued the new version in the form of a ROM upgrade. Most operators installed the upgrade, so even if you find an original board stamped '*Galaxy Force*', it very likely contains the upgraded ROMs. At least one original board has been discovered and dumped, and while it's not currently available to download and emulate, its owner has confirmed to us the key differences.

The main change is the game length: there are only four planets in the original and each stage is shorter. Another key change is that you can only fire one missile at a time (like *After Burner*), rather than multiple missiles. The soundtrack is also different, and several prominent bugs are present. Our source claims that Sega itself no longer owns the original board, which probably explains why 'version 1.0' hasn't been included as a bonus in the otherwise generous PS2 and 3DS releases. It does exist however, so hopefully that will change in the future.



GALAXY FORCE
夢は宇宙へ!!
SEGA
セガ エンタープライゼス

MISSION
SHIELD
ENERGY

Q&A: NEIL COXHEAD

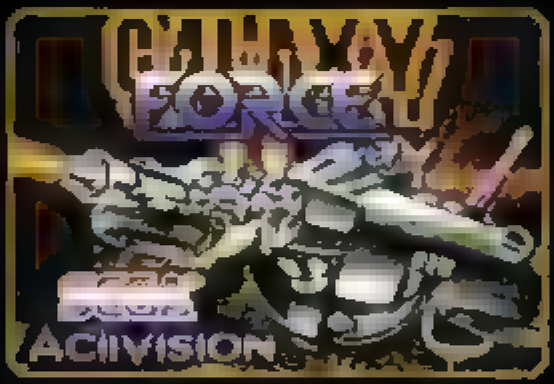
We chat to the coder of the Commodore 64 version of Galaxy Force

What attracted you to this particular conversion?
To tell the truth I was actually more interested in doing the *Power Drift* conversion, which was my favourite game at the time. Chris Butler deservedly got it and did a great job – I still don't know how he did it.

How did you begin to approach such an cutting-edge coin-op?
That was actually the attraction, to try and create the awesome coin-op effect of filling the screen with sprites and stuff flying around all over the place. The gameplay was really only 2D so that made it more manageable. I did some test code and I found I could throw quite a few character block sprites around, and because the action was so full-on, the lack of fine movement was not so obvious. The hardware sprites were used for the main sprite and HUD.

You'd already done *ATF* for the Commodore 64. Were you able to adapt any of the flying code from that game?
No, it was a totally different technique used. *ATF* was sprites on a bitmap terrain. And, of course, I would have broken my employment contract to reuse any code from Digital Integration.

Did you have access to the original coin-op during development?
Activision was doing a lot of coin-op conversions at the time and it had the full-size machines in its office in Reading. Going there for a meeting was great – playing the arcade machines, eating pizza, meeting the other developers. To help the developers the Activision guys played the game through and made a video of it which we used to base our work on. That's what our programmers, artists and sound designers had for reference. There were no actual game assets.

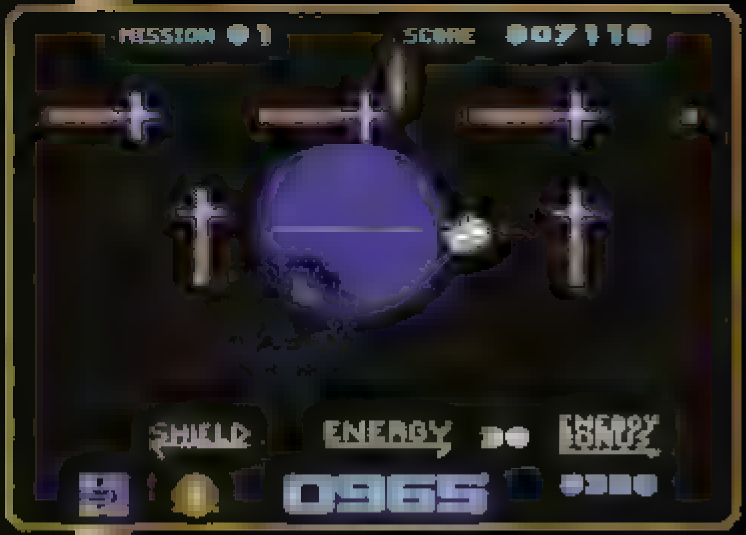


» [C64] It's not the world's greatest C64 arcade conversion but it does have a cool loading screen.

Can you remember any elements that were particularly difficult to translate to the C64?
The scenes where you fly into tunnels and caverns were quite difficult and the end result was not the best. Perhaps using a different 3D style would have been better, but it wouldn't have flowed seamlessly from one stage to another.

How pleased were you with the finished game? Is there anything you would have done differently, looking back?
I've just searched for videos of the C64 version, and having seen it in action again I think the end result was quite satisfactory. I don't think many people played *Galaxy Force* for the gameplay because even in the arcades it was rather one dimensional. The thrill came from swerving through the lava spurts, firing off missiles and feeling the chaos all around you. I don't think that effect could have been done better on the C64.

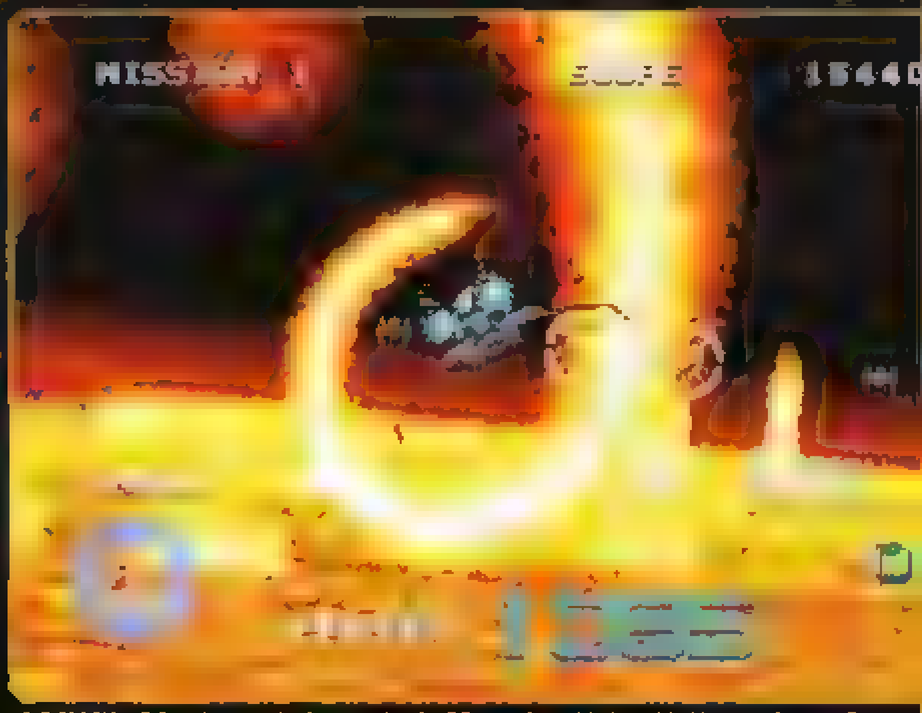
Thanks for sharing your memories. What are you up to these days?
I'm now living in Germany with my family. We run an English-style bed and breakfast, and I have retired from programming and am retraining as a medical masseur.



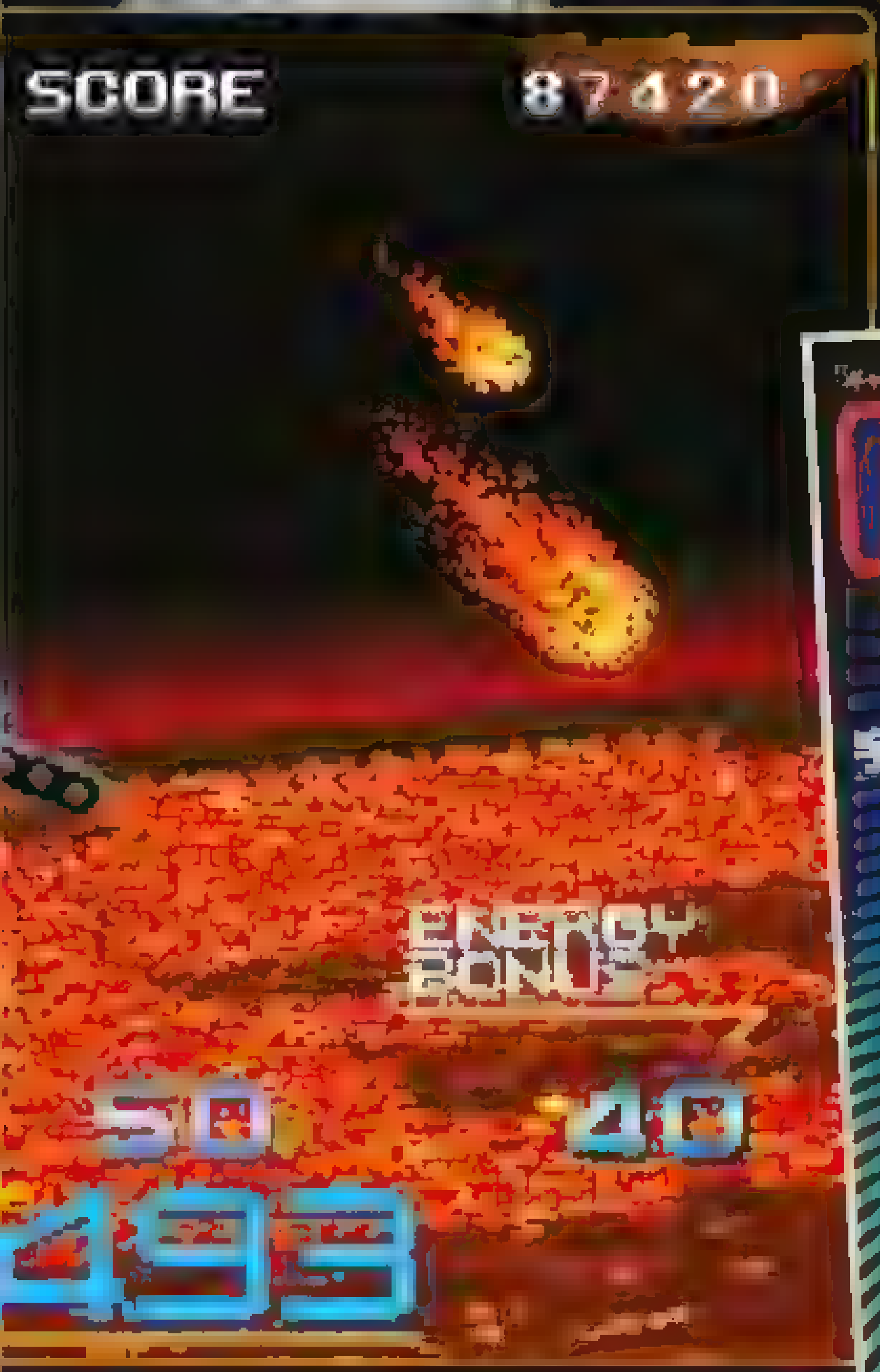
» [C64] It's a solid attempt, but the C64 version of Galaxy Force is a little too choppy at times.

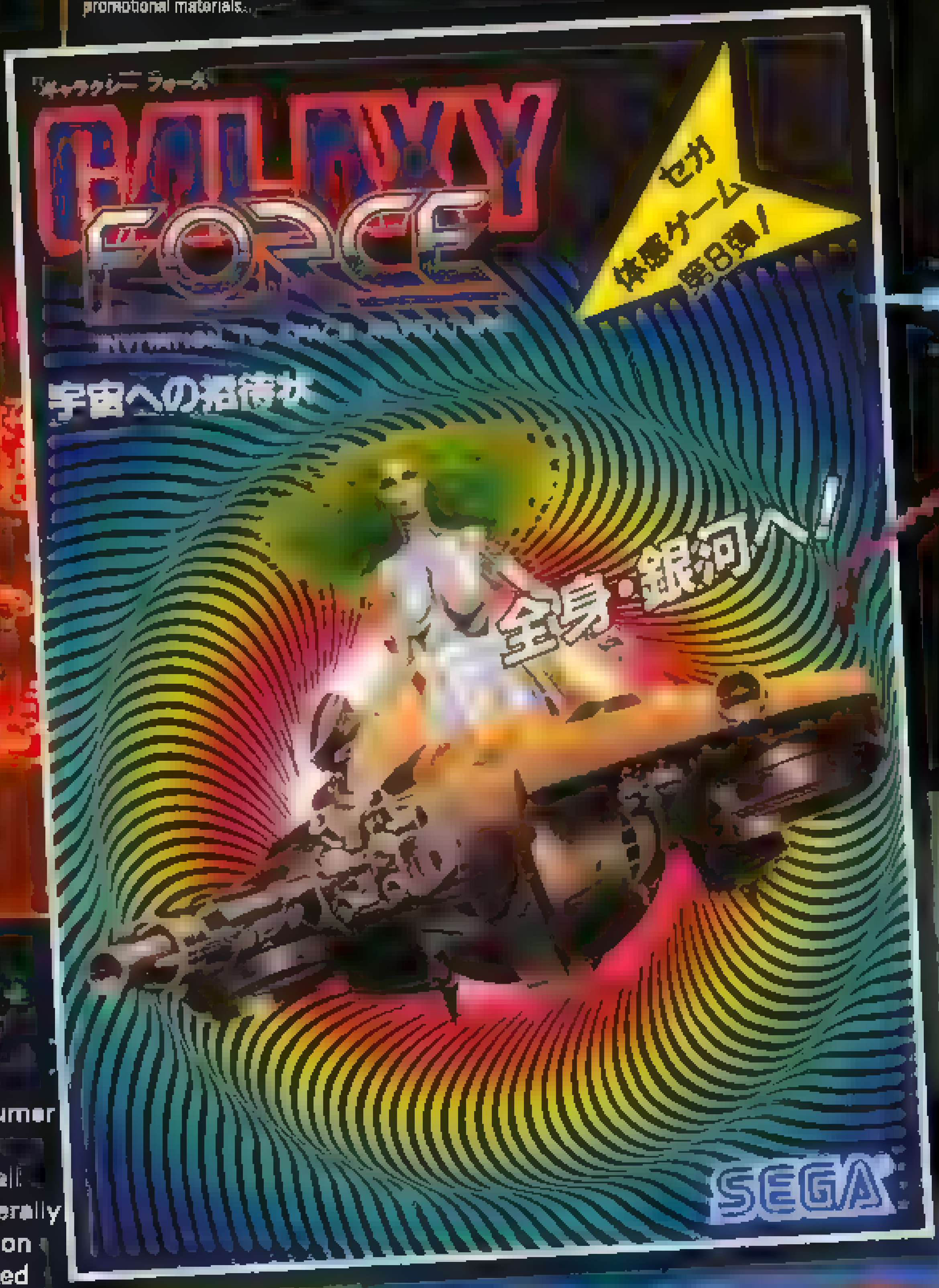
▶ UK showing, distributor Brent Leisure had to house the game in a gazebo outside its London offices as it wouldn't fit inside. Nice bit of PR that! The top model also drew attention when it appeared at the Associated Leisure Preview '89 arcade show in October 1988. "Sega's Galaxy Force II was one of the show's star attractions – mainly because of the cabinet," wrote Andy Smith in ACE magazine. "Stand clear of this beast when someone has got their money in the slot!"

Sinclair User magazine heaped praise on all aspects of the game, awarding it 10/10. "Possibly the most mindblowingly impressive arcade game," it claimed, despite the reporter admitting that they hadn't played the 'final version'. Sister mag Commodore User gave it 8/10. "The gameplay is certainly speedy and engaging, and the sounds and graphics are pretty hot," wrote



» [3DS] M2's 3DS outing was just as good as its PS2 version with the added bonus of great 3D.




ギャラクシー フォース
GALAXY FORCE
INVITATION TO SPACE ADVENTURE
セガ体感ゲーム第8弾!
宇宙への招待状
全身・銀河へ!
SEGA

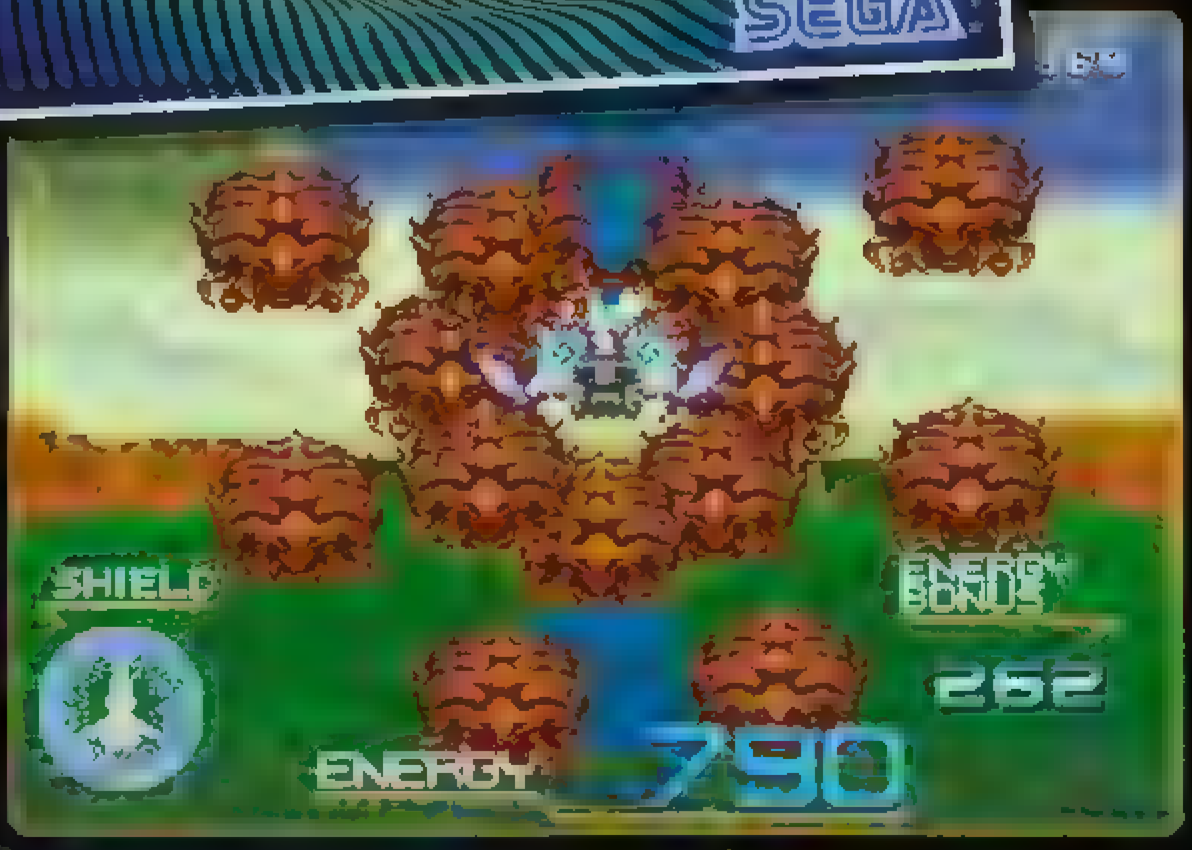
» [Arcade] Stunning screens like this were plastered all over the game's promotional materials.

Nick Kelly. "The chances of a faithful home version appearing are slim. Very slim."

Nick was not wrong. Having already experienced success with its earlier After Burner conversions, Activision grabbed the home computer rights and released the game on all the usual platforms. The versions were generally fine, but they were far from authentic, even on the 16-bit machines. You might have expected the Mega Drive to offer up something closer to the coin-op, but sadly Japanese studio CRI produced a dud (tellingly, the Master System version was less accurate but much more fun). CRI later redeemed itself with an impressive version for the Japanese FM Towns range.

The most authentic version to date arrived on the Saturn in 1998 courtesy of Appaloosa Interactive. Released as part of the Japanese Sega Ages series, this finally brought the arcade game home – albeit running at 30fps, half that of the 10-year-old original. This fact alone underlines just how bloody impressive the coin-op was for its time. It would take almost another decade for an arcade perfect version to arrive in the shape of Galaxy Force II: Special Extended Edition for the PlayStation 2. The bold subtitle was justified as it was a compilation from remaster specialists M2 that included the arcade game (in both its original form and a visually-polished 'Neo Classic' version) plus the Mega Drive and Master System versions, along with a bunch of nice extras. One of the best additions was the widescreen mode which enhanced the game's cinematic feel. Sadly the PS2 version was only released in Japan under the Sega Ages 2500 banner (although it is possible to download it on PS3 if you have access to the Japanese PlayStation Store).

Galaxy Force looks best when played on a large screen, so it was a revelation to play M2's recent version for the Nintendo 3DS. The 3D effect was eye-poppingly brilliant and really brought the game to life on the tiny screen. It wasn't quite as cool as playing the Super Deluxe Type, but then you couldn't exactly fit that in your pocket, could you? ★



» [Arcade] This swarming enemy proves almost impossible to avoid, so you need to blast right through it.

Joust

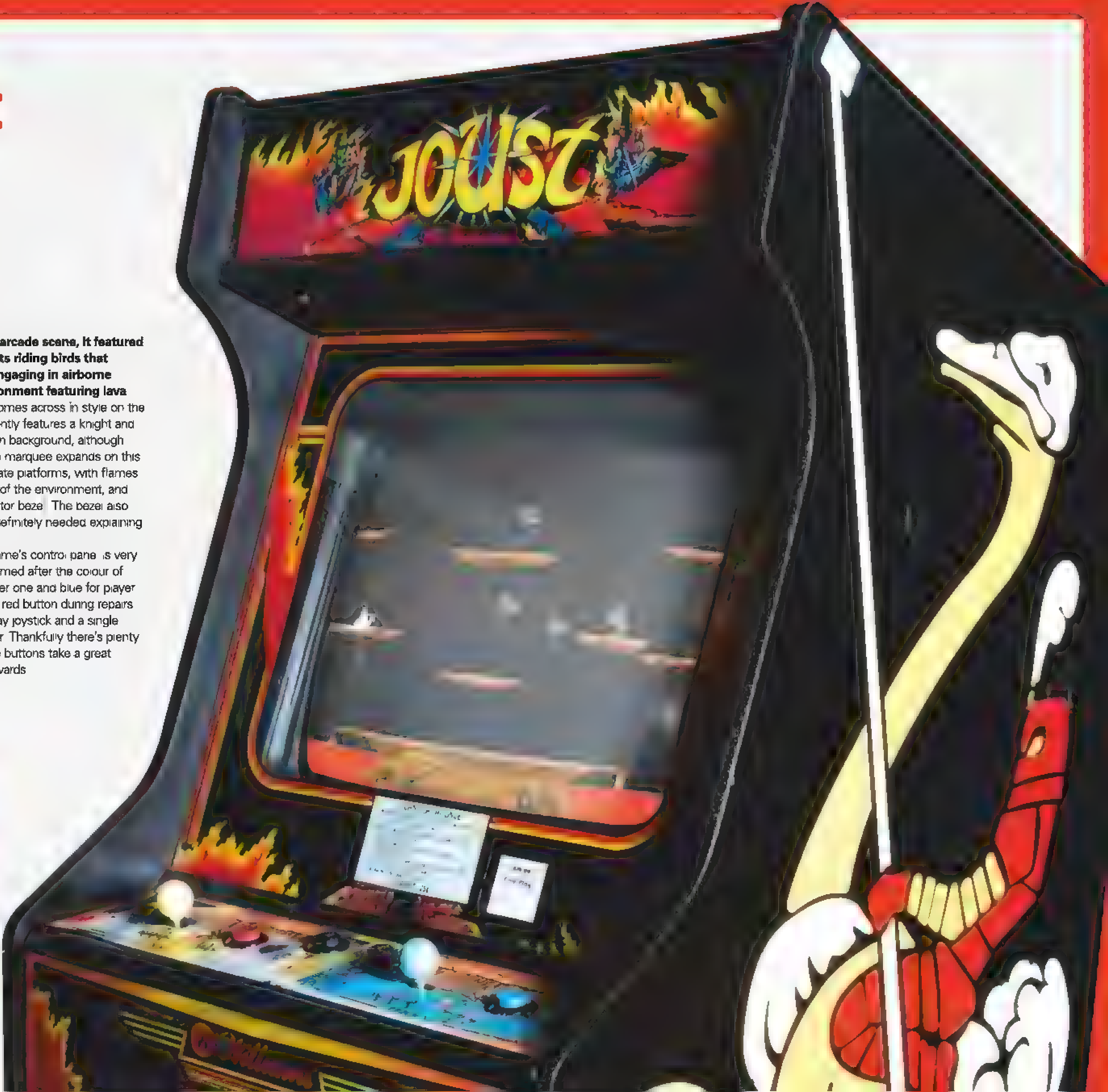
» **DEVELOPER:** Williams » **YEAR:** 1982

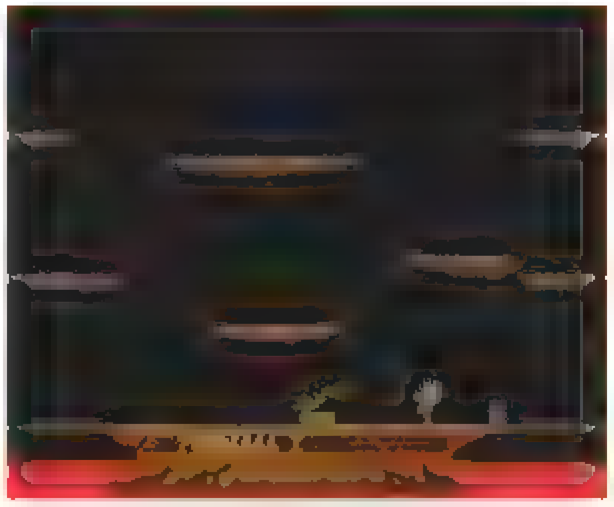
When Joust arrived on the arcade scene, it featured a unique premise – knights riding birds that appear to be ostriches, engaging in airborne combat in a hostile environment featuring lava and monsters. That unique premise comes across in style on the game's cabinet, as the side art prominently features a knight and his avian steed – most often on a brown background, although the cabinet we've pictured is black. The marquee expands on this by featuring opposing knights on separate platforms, with flames to represent the hot lava at the bottom of the environment, and the theme continues down to the monitor bezel. The bezel also displays the game instructions, which definitely needed explaining due to the remarkable premise.

Despite the unique gameplay, the game's control panel is very simple. Each player's control area is themed after the colour of the on-screen character, yellow for player one and blue for player two, although this cabinet has gained a red button during repairs at some point over the years. A two-way joystick and a single 'Flap' button are provided for each player. Thankfully there's plenty of space for your hands, because those buttons take a great hammering as you propel your bird upwards.

Joust fact

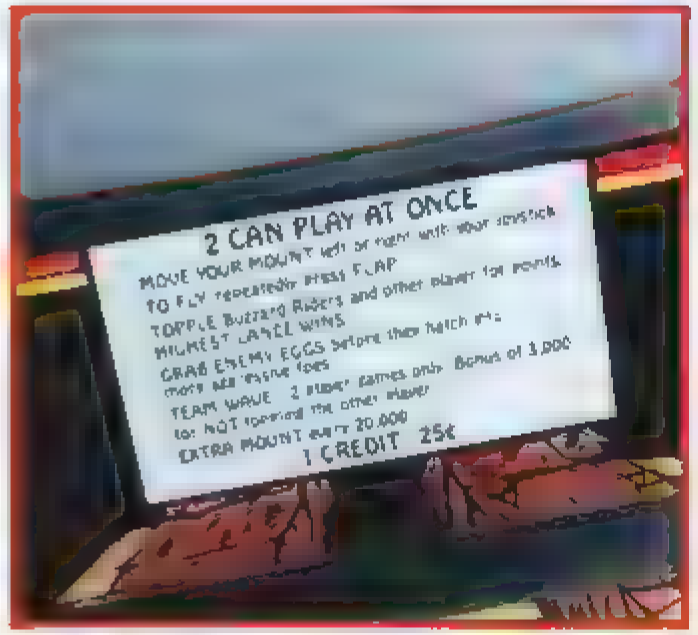
- The upright version of *Joust* was very common, but there was also a version in cocktail cabinets. Between 500-600 units were cocktail versions – less than three per cent of the production run of approximately 26,000 units.





STANDOUT MOMENT
You Only Die Twice

When you smash an opponent off their flying mount, an egg goes flying through the air and typically comes to rest on one of the platforms below. Once that has happened, the enemy is down but not out – you've got to collect the egg in order to fully eliminate them. But sometimes, it's most satisfying to wait and let the egg hatch into a human again. Then, just as their ride starts inching slowly closer to them, run them over and crush their dreams (as well as their bones, most likely). It may be a little cruel, but it's good fun.


2 CAN PLAY AT ONCE
MOVE YOUR MOUNT left or right with your joystick
TO FLY repeatedly press FLAP
HIGHEST LANCE WINS
EXTRA MOUNT every 20,000
1 CREDIT 25¢

SYSTEM SUPPLIED BY **ARCADE CLUB**

The Making Of

DIVINE DIVINITY

Larian Studios has only recently found true success with Divinity: Original Sin. However, it has been championing RPGs for decades. Join founder Swen Vincke as he returns to the source of the studio's most acclaimed series

Words by Robert Zak

In 2014, Divinity: Original Sin hit the games industry like a radiant warhammer summoned out of the ether. Original Sin and its sequel have been hailed as two of the best RPGs of recent years, even all time, yet they come off the back of a long series of frustrated ambitions, great storytelling and some ill-conceived alliteration. That series started back in 2002 with Divine Divinity.

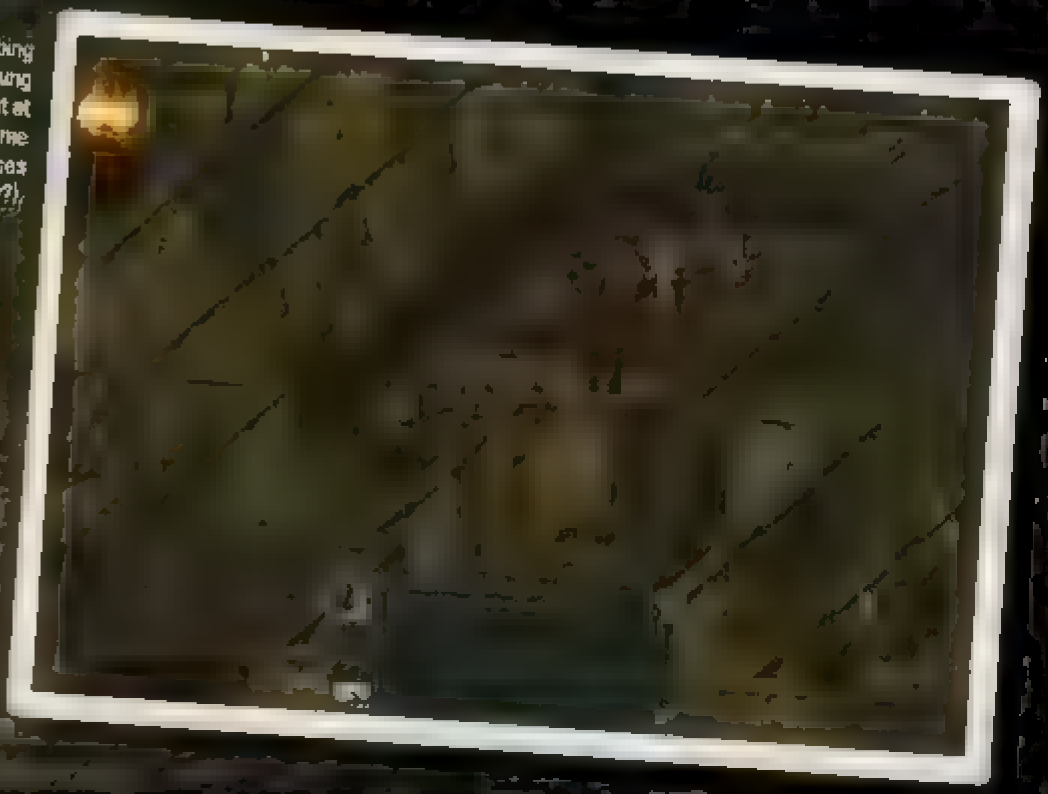
Technically, the series' roots go back even further, to a game that Larian Studios' founder Swen Vincke suggests may have had an "even worse title" than Divine Divinity. In 1996, Swen and four of his friends began work on a game in the spirit of the great Ultima VII; a dynamic open-world RPG with unbound possibilities, rich character development, and a wicked sense of humour. The game was called Ragnarok Unless… (yes, the ellipsis is part of the title).

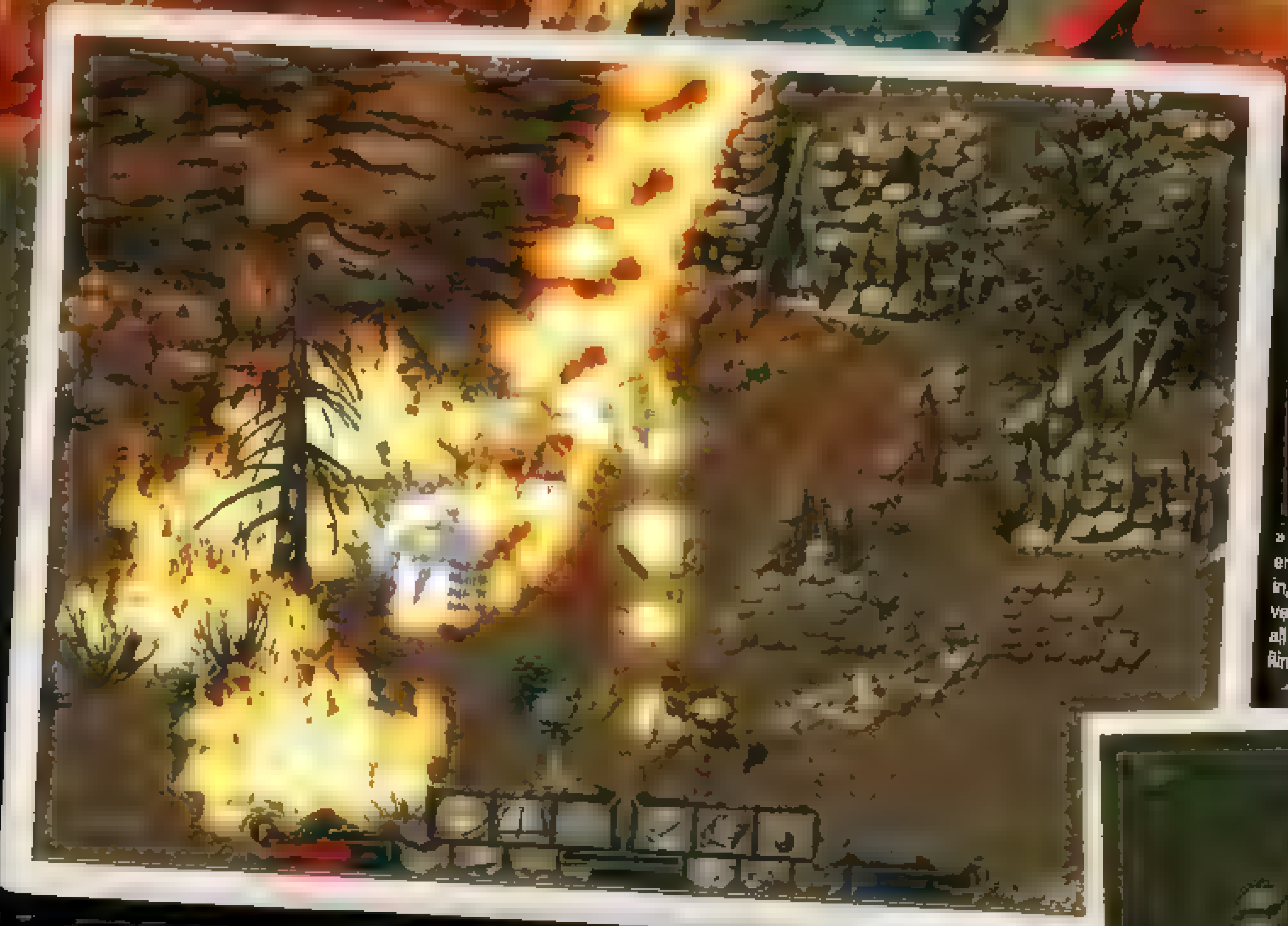
Ragnarok was extremely ambitious for a first game, with two playable protagonists whose storylines would converge into one, co-operative multiplayer, and many of the traits we'd eventually see in Original Sin nearly 20 years later.

Larian Studios was not officially an entity at this point, but when Swen managed to get Atari interested in publishing Ragnarok, he had to give off the image of a studio that knew what it was doing. "We were just a bunch of guys hammering around at Intel 486s in an apartment," Swen recalls. "We had the idea that if we presented ourselves as a studio we'd get a big cheque for it."

Atari was impressed by the pitch from the three guys posing as 'Larian Studios', and offered them $50,000, which by this point took on the more rhythmical title of The Lady, the Mage And The Knight (LMK). But Larian's tenuous foothold in the games industry didn't last long. Atari's president Sam Tramiel suffered a heart attack, causing his father Jack to step in and sell the company in 1996. Atari Corporation subsequently left the games industry, and with that went the publishing deal.

» [PC] The disturbing appetites of the young Duke Jenas hint at the Divinity's Game Of Thrones influences (shades of Joffrey?).





» [PC] When the enemies started piling in, combat would get veritably Diablo-esque, all swinging swords and flinging spells.

» [PC] A talking white cat and an eccentric wizard prove to be two of your best friends.

IN THE KNOW

» **PUBLISHER:**
CDV Software Entertainment

» **DEVELOPER:**
Larian Studios

» **RELEASED:**
2002

» **PLATFORM:**
PC

» **GENRE:**
RPG

Larian spent the best part of a year looking for someone to publish LMK, and was eventually picked up in 1997 by German publisher Attic Entertainment. Atari it certainly was not, but at least the lower status of this "B-publisher", as Swen puts it, meant that Larian didn't have to cover its work-from-home setup. "I remember buying a table for the apartment to receive the publishers for LMK because we didn't have a meeting table before that," Swen remembers.

Finally Larian could get to work with some kind of consistency. LMK was an 8-bit game at this point, which opened it up to people with older machines. "Not everyone had a Voodoo graphics card at this time," Swen points out.

But every now and then, the games industry gets shaken up by a seminal title that raises the bar, and alters audience expectations of a given genre. Attic Entertainment took a work-in-progress version of LMK to E3 in 1998 with the intention of wooing the public with it, but came back from the show intimidated by something else they saw.

"They came back and said 'Diablo II's going to change everything," Swen remembers. "It was big, it was 16-bit, and we were 256-colour. Attic said they could fund an increase in the size of production if we changed the storyline to fit into the Dark Eye universe – very popular in Germany at the time. Of course we said yes".

Larian's team grew from five people to 30. But Attic made this investment with the assumption that its other projects would go according to plan, which they didn't. Seeing that his employees weren't getting paid and that the situation wasn't likely to change, Swen made the tough decision to cancel the publishing deal with Attic in 1998.

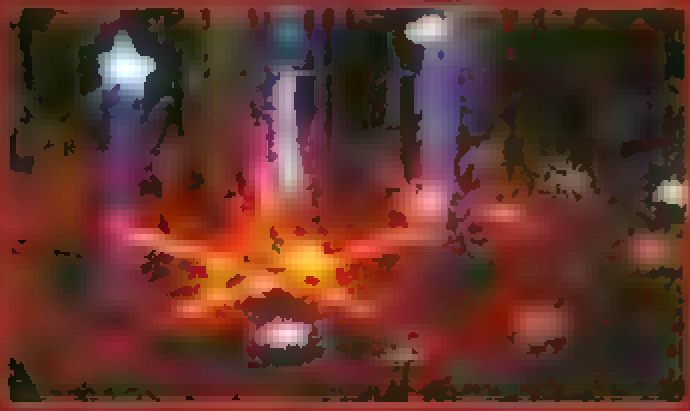
LMK was gone, and Larian was back to square one. The studio began doing work-for-hire. There were some strange projects during this time, including a government-made game that involved a giant virtual head greeting the Prince of Belgium when he entered a technology exhibition. "It had a facial capture system that I was actually pretty proud of," Swen recalls.

More importantly, these projects gave Larian the funds to start working on its first Divinity game – then known as Divinity: Sword Of Lies.

It was a different beast from LMK, pared back in its ambitions and built on a reworked version of the same engine. It was more explicit in its Diablo influences – particularly in the way of combat and a murky aesthetic that evoked a crumbling, forlorn world. This decision was more of a survival necessity than an act of deference to the hack-and-slash juggernaut. Swen wryly remarks, "If you wanted to sell an RPG and get money to make it in 1999, and it didn't have the word 'Diablo' in the pitch, you were dead". ▶

Divine Games

Larian's RPG saga has gone in all kinds of directions before arriving at Original Sin II



BEYOND DIVINITY

2004

■ In some ways, this sequel is both a throwback to *The Lady, The Mage And The Knight*, and contains the nugget of an idea that would later evolve in *Original Sin*. It introduced control of two player-characters for the first time. Many critics, however, felt like it was too much of a retread of the original.

DIVINITY II

2009

■ A leap into a new generation, *Divinity II* is one of the few non-Bethesda RPGs to use the Gamebryo engine. It brought the series into 3D and onto consoles, carrying over that distinct humour the series is known for. It was also, however, plagued by missed deadlines and rushed to completion.

DIVINITY: DRAGON COMMANDER

2013

■ Marrying Larian's passion for RPGs and strategy, *Dragon Commander* is the series' wildcard spinoff. Part-scheming sim, part-strategy game, it's a fantasy wargame that tasked you with bringing the bastard son of a dead emperor to the throne. It features dragons and airships. What more do you need?

▶ But Divinity also forged its own identity, moulded by a unique tone and dark humour that wasn't afraid to delve into adult themes like prostitution, sex, and creepy demon children with adult appetites. While the plot was a standard fantasy tale of demon lords and prophesied heroes, the tone anticipated the scabrous low-fantasy worlds of The Witcher and Game Of Thrones. This wasn't entirely coincidental. "Back then there was a lot of Pratchett," Swen says. "A Game Of Thrones was out too. I bought my daughter one of the first editions."

With European RPGs not traditionally having the best reputation for voice acting and dialogue, Larian's solution was simple: use an English writer, then translate the game to European languages from there. The game's writer Damon Wilson had just finished writing a book about Nostradamus too, which was perfect preparation for a game about manifest destiny. "Every time we scripted something, Damon would make decent phrases out of it. He really captured the tongue-in-cheek spirit of the company," Swen tells us.

Players would pick from three classes – Warrior, Mage and Survivor. But this wasn't a typical class-based RPG. Frustrated with the rigid class structure in most RPGs, Swen wanted to offer complete freedom with character development, allowing each character to unlock any of the game's skills and spells. "This stuff was impossible in most RPGs, but I didn't see a good reason for making it impossible," says Swen.

Divinity found its third publisher in 1999 – CDV Software. This prompted Larian to drop all its work-for-hire projects and focus entirely on the game which, to Swen's horror, was now going to be called Divine Divinity. It seemed that CDV, publisher of the tactics game Sudden Strike had a thing for alliteration. "I can assure you there were lots of emails trying to get the name changed," Vincke says. "They blamed it on the English marketing department, which I later found out wasn't true. It was just a stupid thing to do."

Upon signing a contract with CDV, ideas that were once malleable now became contractually binding. One of those documents included a formidable 96 spells and skills, which Swen now had no choice but to cram into the game.

"We hadn't thought through all the skills we were going to do, but the contract said '96', so 96 it had to be," he tells us. "I programmed nearly all of those, and remember sitting there and thinking 'What the hell am I going to do with this?'"

The system was, by Swen's own admission, messy. Some spell books were named after different spells, others overlapped, while a cunning use of the Master Summoner and Aura Of Command spells could be game-breaking in the right hands. It could all have worked much better, Swen says, had Larian been given more time.

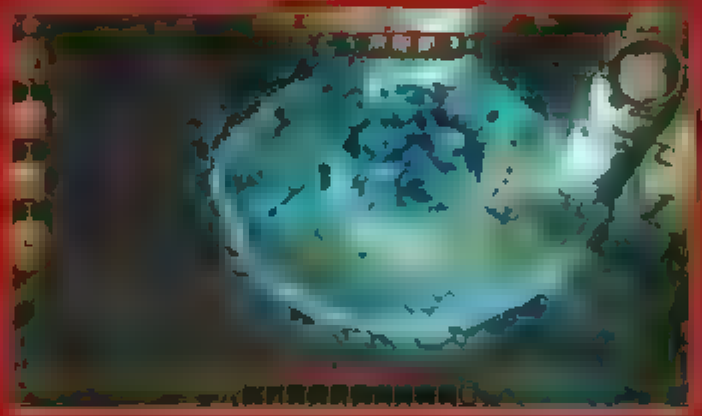
But by 2002, time was at a premium. CDV wanted the game shipped, so Swen wrote a candid letter to the publisher explaining why more time was needed. The letter was alarmingly honest, going into detail about incomplete systems, dropped ideas, things that didn't work,

■ [PC] There was no grid in the inventory screen, allowing you to organise your items just how you liked.

DIVINITY: ORIGINAL SIN

2014

■ Borne of a Kickstarter project, *Original Sin* showed what Larian is capable of without the weight of a publisher bearing down on it. This prequel to *Divine Divinity* returns the series to a top-down perspective, reintroduces multiple playable characters and let you explore its rich world.

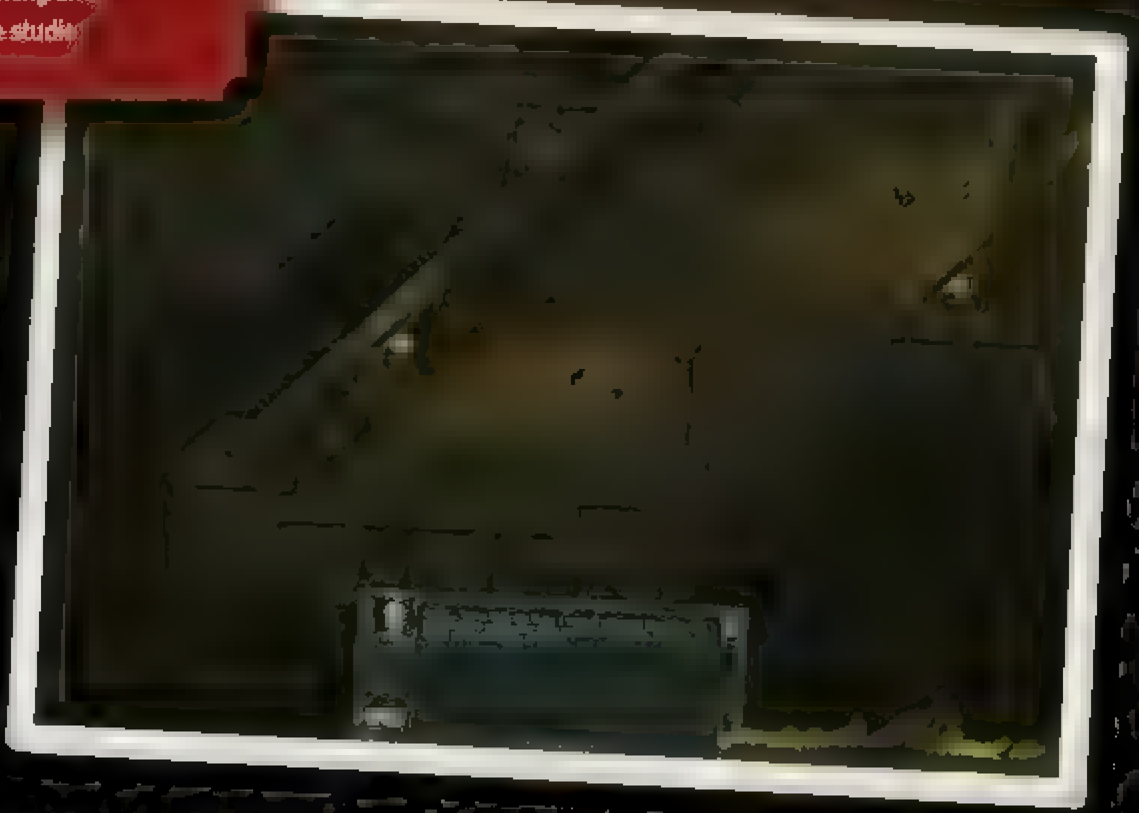


DIVINITY: ORIGINAL SIN II

2017

■ Building on its predecessor and expanding character development to unthinkable levels, *Original Sin II* is hailed as a masterpiece – both a return to the depth of D&D-style campaigns and a trailblazer of combat, storytelling and worldbuilding. A crowning achievement for the studio.

» [PC] The series' black humour is exemplified by these two skeletons that kill each other with existential questions.



> "They sent a Death Squad of producers..."
>
> Swen Vincke

and – of course – comparisons with Diablo II, which at that point in development were unfavourable. Swen now describes the letter as 'naive idealism', believing that CDV would grant more time to iron out the issues. So did it go down well?

"No," Swen laughs. "They sent a Death Squad of producers and we had to convince them not to cancel the game immediately. It worked though. They saw we had much more than everyone expected, but there was no more room for negotiation." The game had to be delivered within a few months and, of all things, CDV wanted it to feature roofs. Roofs were added, large sections of the game – including a desert region and Dark Forest dream sequence – were cut to save time, but the bugs remained. Development continued, but word was that CDV didn't believe in the game any more, and just wanted it out the door.

One area of Divinity that remained uncompromised was Kirill Pokrovsky's soundtrack. Its mandolins and haunting vocals imbued the game with a twinkling ambience that, along with the writing, went some way to covering the underlying lack of polish. Kirill befriended Swen when organising a concert in Brugge, and went on to shape the series' music until his death in 2015. "He was Russian, so had this Slavic melancholy in everything he made," Swen says. "He got into it because he had an Atari with a MIDI ouput, and just kept pouring out music. The man was a machine, and for Divinity II we counted he made some 420 pieces of music."

Compromised or not, CDV released Divine Divinity in Germany in 2002 without Swen's consent. Reviews reflected the fact that the game was incomplete, but luckily Larian had six months to finish the international version.

Divine Divinity was a success, but the fact that Larian proved its publisher wrong was scant consolation. Larian received almost none of the proceeds and was forced to downsize the studio from 30 people to a skeleton crew of three, just to manage the game post-release before being dropped by the struggling CDV.

Overrun deadlines and hasty publishers became a running theme throughout subsequent Divinity games, suggesting that perhaps Larian's meticulous design process and obsession with detail didn't fit the ruthless conveyor belt of games publishing. Yet for all the series' tribulations, its core – the cheeky spirit and love for storytelling and role-playing – helped it build a following while more grandiose games hogged the limelight.

So when Swen decided to launch a Kickstarter for Divinity: Original Sin in 2013, it easily doubled its funding targets. Gamers had seen enough in Larian's rugged earlier efforts to put their faith in the studio. Finally free to enact its vision, Larian made a couple of RPGs that are now immortalised in gaming legend. The series that once had to emulate Diablo to survive, was now itself one that developers would look to for inspiration.

After 18 years of toil, Larian Studios has finally gained ascension. ★

Box of Secrets

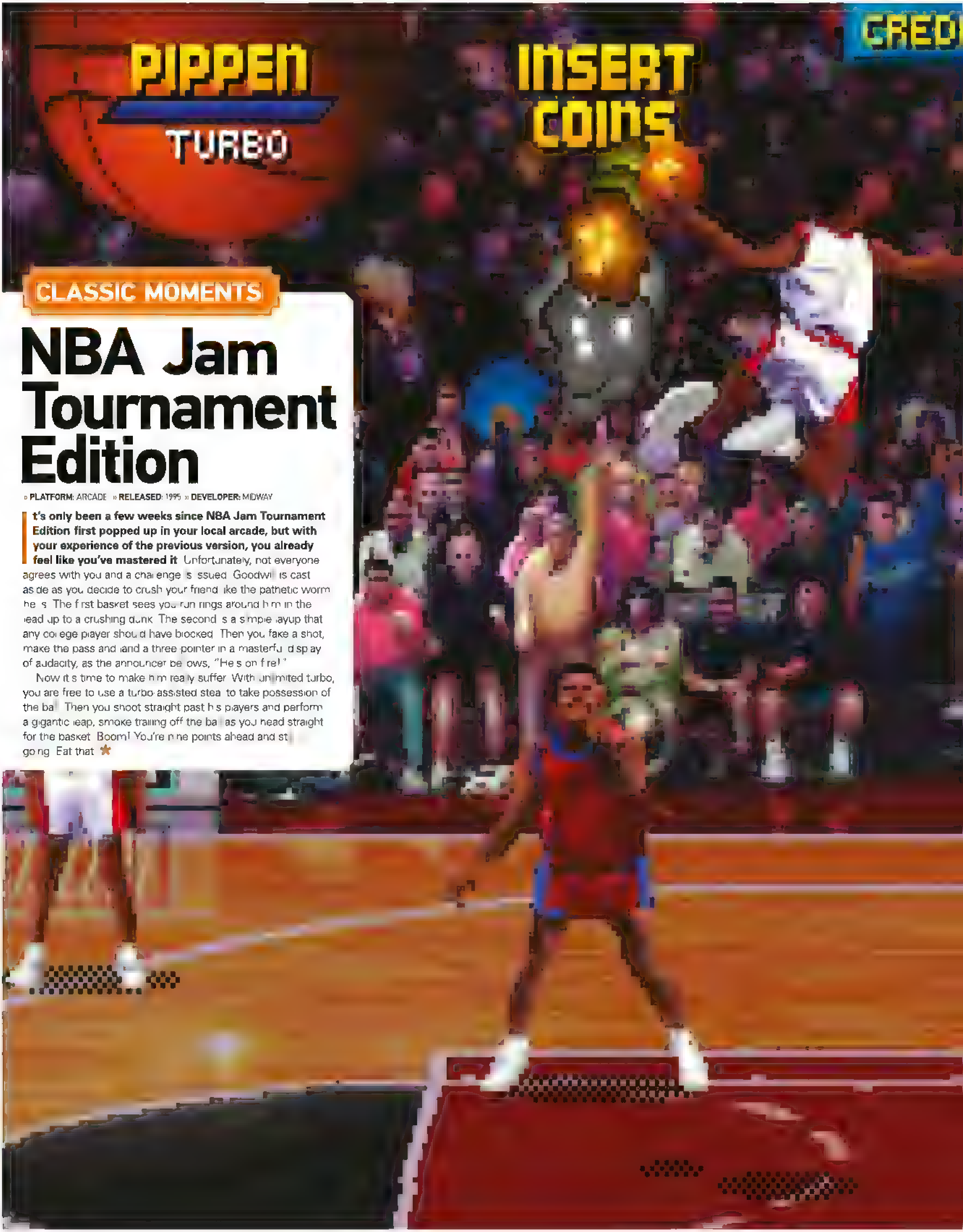
How to unearth unseen elements from Larian's past

Want to Play LMK?

For years, it looked like *The Lady, The Mage And The Knight*, the unreleased game that preceded the *Divinity* series and birthed many of its great ideas, was gone forever. But from 2012, GOG.com has been bundling a playable tech demo of *LMK* with copies of *Divine Divinity, Beyond Divinity, Divinity II* and the Special Edition of *Original Sin*. A great peek into where it all began.

The Dream Sequence

One of the cut dream scenes from the game can be accessed through a teleport pyramid glitch, at the southern end of the map near one of the first catacombs dungeons. It pits you against a cat that transforms you into a rat then chases you. It's incomplete of course, but it offers a peek behind the curtain.



CLASSIC MOMENTS

NBA Jam Tournament Edition

» **PLATFORM:** ARCADE » **RELEASED:** 1995 » **DEVELOPER:** MIDWAY

It's only been a few weeks since NBA Jam Tournament Edition first popped up in your local arcade, but with your experience of the previous version, you already feel like you've mastered it. Unfortunately, not everyone agrees with you and a challenge is issued. Goodwill is cast aside as you decide to crush your friend like the pathetic worm he is. The first basket sees you run rings around him in the lead up to a crushing dunk. The second is a simple layup that any college player should have blocked. Then you fake a shot, make the pass and land a three-pointer in a masterful display of audacity, as the announcer bellows, "He's on fire!"

Now it's time to make him really suffer. With unlimited turbo, you are free to use a turbo-assisted steal to take possession of the ball. Then you shoot straight past his players and perform a gigantic leap, smoke trailing off the ball as you head straight for the basket. Boom! You're nine points ahead and still going. Eat that.

T 00
GUGLIOTTI
TURBO
INSERT
COINS

BIO

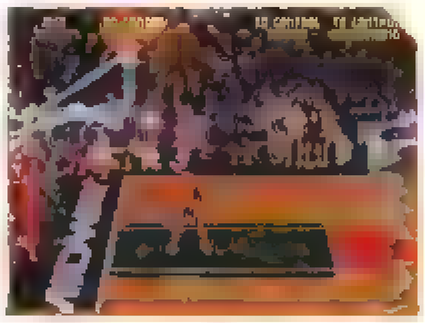
After the roaring success of NBA Jam in arcades, it was only a matter of time before Midway launched an update. The result was Tournament Edition, the definitive edition of the original game. Extra players and the ability to make substitutions were added, as well as new dunks, cheats and secret characters, plus the ability for both players to select the same team. For the hardcore, Tournament Mode allowed players to turn off all cheats and CPU assistance for a pure game. Acclaim got the home console rights and brought it to the majority of contemporary home consoles and handhelds.

MORE CLASSIC NBA JAM TOURNAMENT EDITION MOMENTS

At The Buzzer

When little can separate two evenly matched teams, one of basketball's most dramatic scenes often closes the match: the full-court Hail Mary shot. It's often an act of desperate futility, but if you somehow get the bucket and those three points steal the game, you'll have bragging rights over your opponent for weeks.

Rejected



It's always fun to block a layup, but there's something even better than that. Your opponent leaps into the air, legs spread out with the ball held between them – when your player intercepts the dunk and rips the ball straight from his stupid showboating hands. That'll teach him. That's what he gets.

Ugly Steal

The rules of basketball generally prohibit too much contact, and referees have to tread a fine line between calling too many personal fouls and allowing too much physical play. Not so in NBA Jam – it's absolutely fine to flatten your opponent in an attempt to steal the ball, and rather satisfying when you pull it off.

Boomshakalaka!

As you can tell, we're quite fond of the commentary in NBA Jam – every moment of the game is punctuated with some memorable utterances. But the best one of the lot comes when you land a dunk and he shouts, "Boomshakalaka!" Not only does it amplify the moment, it usually generates extra off-screen trash talk.

Minority Report

INTERESTING GAMES YOU'VE NEVER PLAYED

NAOMI AND ATOMISWAVE

The Dreamcast was a much-loved console, but in the form of the Naomi and the Atomiswave hardware it also played host to some great arcade games. We take a look at a few you might not have heard about

Words by Jonny Dimaline

SLASHOUT

■ DEVELOPER: SEGA ■ YEAR: 2000

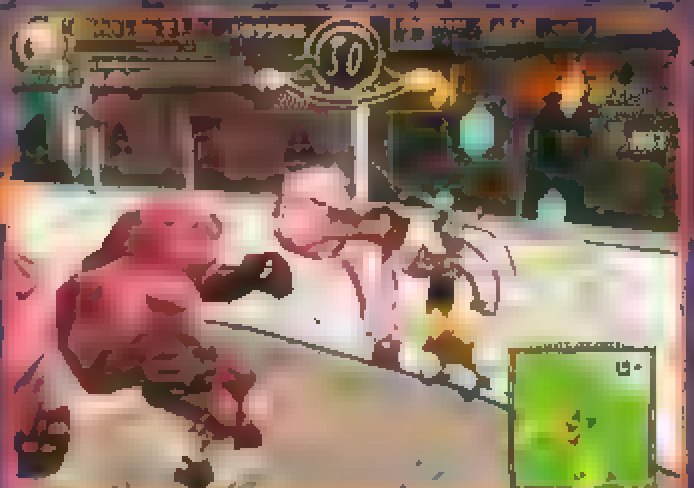
■ **One example of a genre where the Dreamcast found itself lacking, while its arcade siblings thrived, is the beat-'em-up: there were almost none released in the console's short life.** They might have been slightly out of vogue at the time, but there were still plenty of people clamouring for them, and the Naomi and Atomiswave had a few examples that would have been prime material for home ports. Slashout, a fantasy-themed spin-off from Sega's Spikeout series, is one such example.

It's fairly standard fare for the genre, having the player pick from four archetypal fantasy heroes (Slash the fighter, Luna the dancer, Axel the warrior, and Kamui the ninja), and fight gangs of monsters in standard (though very nicely rendered) fantasy locations. There's a little bit of RPG flavour, too, as collecting gems gives experience points with which you use to level up, though levelling only seems to refill and slightly extend your life bar, so it's really just a different way of providing the extra lives at certain score intervals which traditional beat-'em-ups often have.

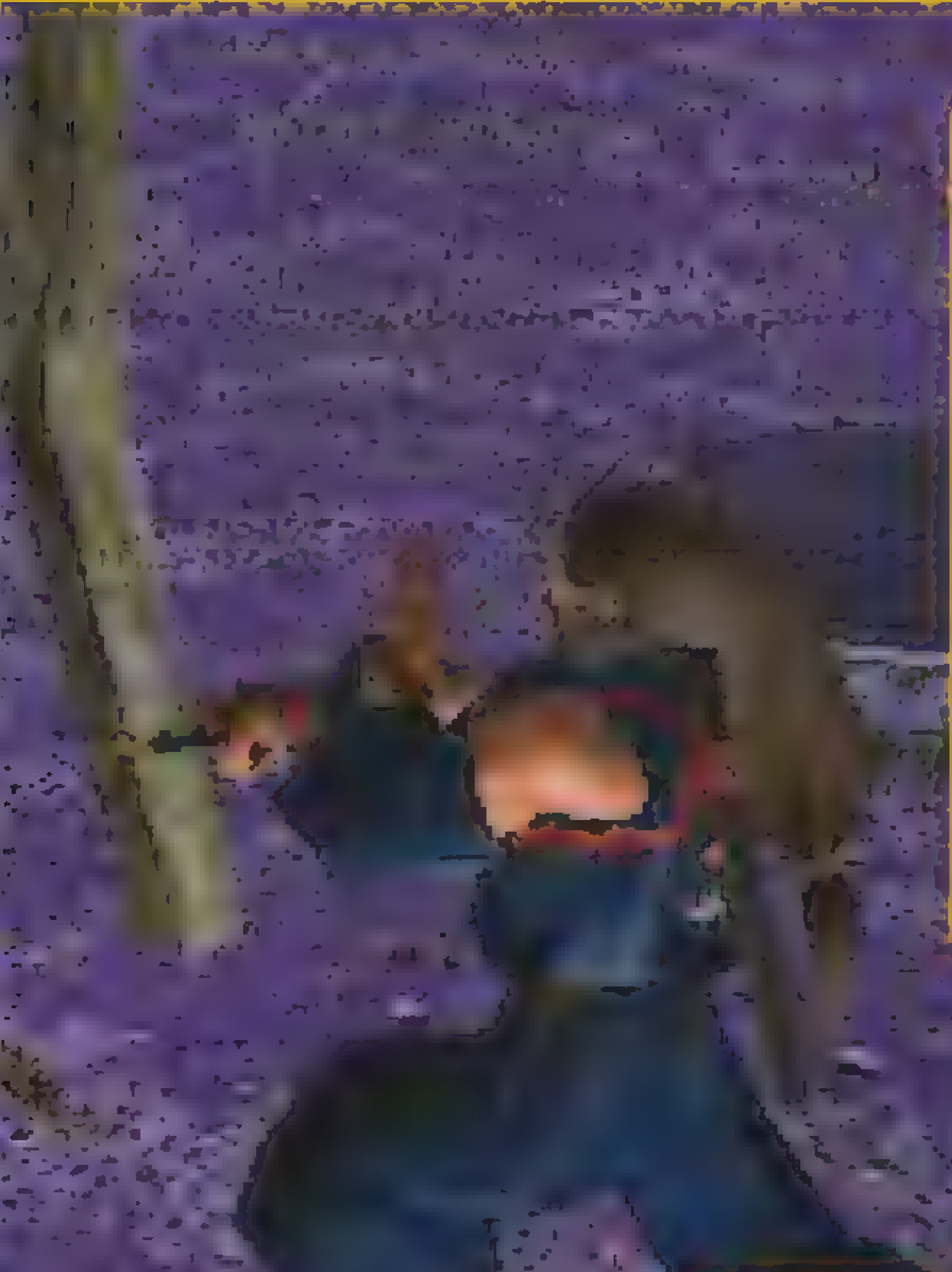
Slashout isn't just a new lick of paint on an old genre, though, as it adds a fair bit of complexity. Not only are there two attack buttons with which to build combos, there's also the addition of a strafe button, which does exactly what it sounds like it does, and is essential for dodging boss attacks. There's magic, too, though it's more of a powerful special move, than the screen-clearing bomb attack to which players who remember the Golden Axe games might be more accustomed to – though the limited 'super magic attacks' do offer the choice between something similar, or a temporary 'berserk mode', which allows players to take the risk of lowering their defence to increase their attack.

The only real problem Slashout has is the difficulty curve, which is more like a sheer vertical cliff. As soon as the game begins, you're bombarded with crowds of enemies to fight off, and the game wastes no time in introducing foes with high-damage, hard-to-avoid attacks, either. The aforementioned magic offers little solace, as it requires a few seconds of charging without being hit to execute, making it somewhat difficult to effectively aim. Maybe this difficulty was a deciding factor in leaving the game in arcades? Maybe it also had to do with the fact that multiplayer was handled by multiple linked arcade cabinets, and Sega had mostly given up on online game even as early as late 2000? Whatever the reason, though, it really is a shame that they couldn't figure out some way of bringing this game home.

The spectacle alone of a game looking as good as this one on a home console in the year 2000 would have been worth it! We guess we'll never know how it would have been received, and Sega and fans alike seem to have forgotten the Spikeout series in general, let alone this fantasy offshoot when it comes to requesting new ports of old games.



■ [Arcade] Gems spill out of enemies upon every hit and give you XP. And regular points, too, for the score-chasers out there.



IF YOU LIKE THIS TRY…

GOLDEN AXE: REVENGE OF DEATH ADDER

ARCADE

■ Unfortunately, though this game is undeniably the *Golden Axe* franchise's finest hour, it never got a release on any home systems. We can only hope that someday in the near future M2 will look kindly on it and release it as part of its *Sega Ages* series of classic ports.

KING OF DRAGONS

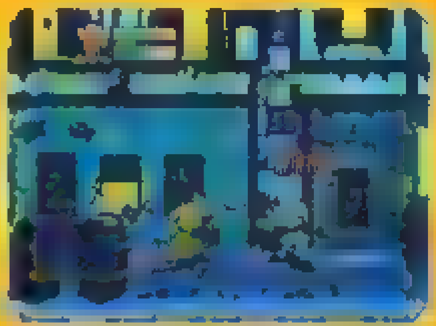
ARCADE

■ A few years before its *Dungeons & Dragons*-licensed beat 'em-ups, Capcom released this simpler, but no less enjoyable and definitely great-looking fantasy brawler. Handily, it was also recently ported to modern systems as part of the publisher's *Beat 'Em Up Bundle* as well as hitting the SNES at the time of its original release.

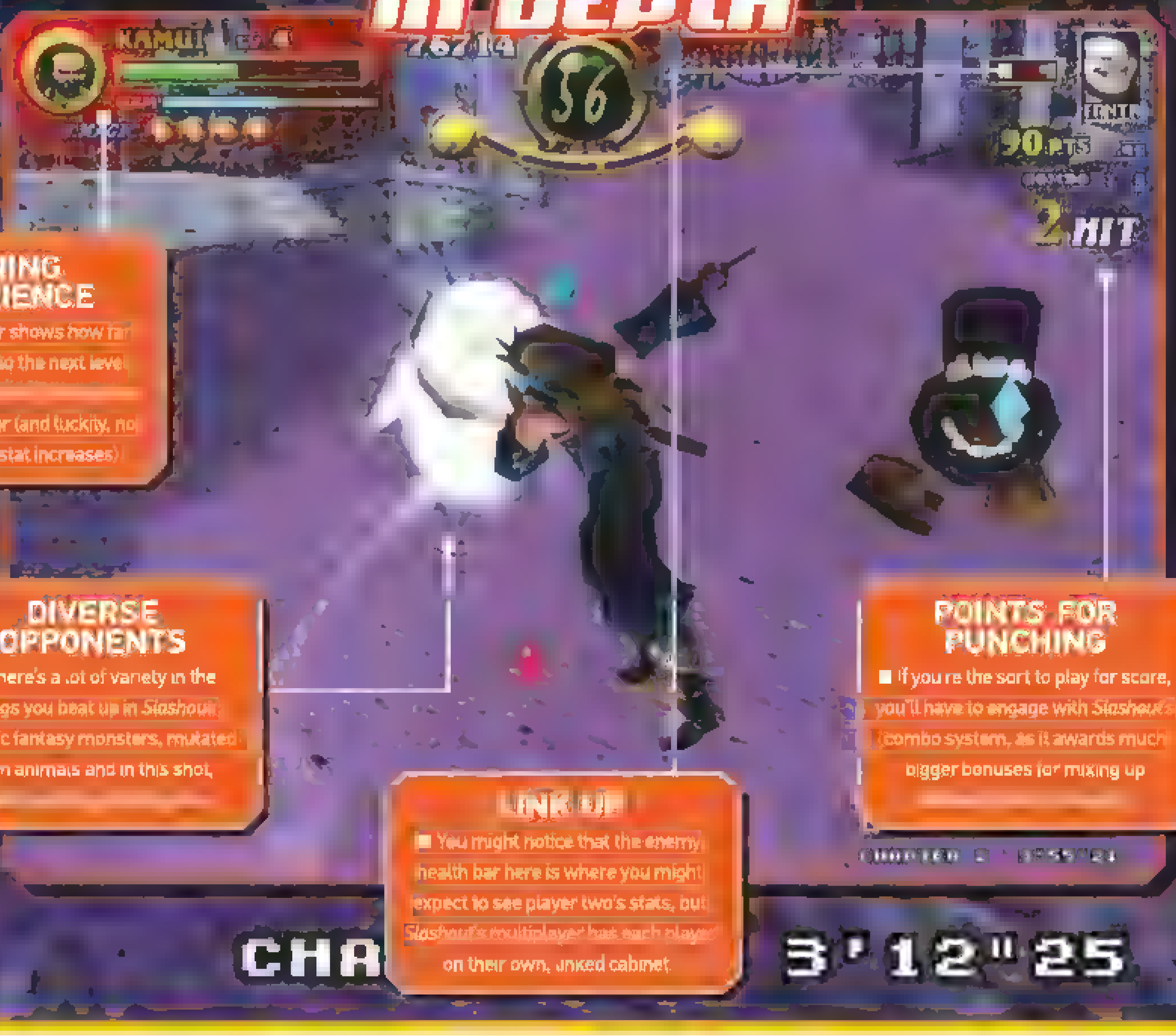
GUARDIAN HEROES

SATURN

■ We are sure most people reading this know about Treasure's excellent beat 'em-up/RPG hybrid, but if you don't: it's got massive sprites, branching paths and an amazing, insane six-player versus mode. Definitely worth seeking out, even if the prices it fetches nowadays can be somewhat hefty.



IN DEPTH



GAINING EXPERIENCE

■ The gem meter shows how far you've got to go to the next level

a refilled healthbar (and luckily, no game-breaking stat increases).

DIVERSE OPPONENTS

■ There's a lot of variety in the things you beat up in *Slashout*: generic fantasy monsters, mutated farm animals and in this shot,

LINK UP

■ You might notice that the enemy health bar here is where you might expect to see player two's stats, but *Slashout's* multiplayer has each player on their own, linked cabinet.

POINTS FOR PUNCHING

■ If you're the sort to play for score, you'll have to engage with *Slashout's* combo system, as it awards much bigger bonuses for mixing up

Minority Report

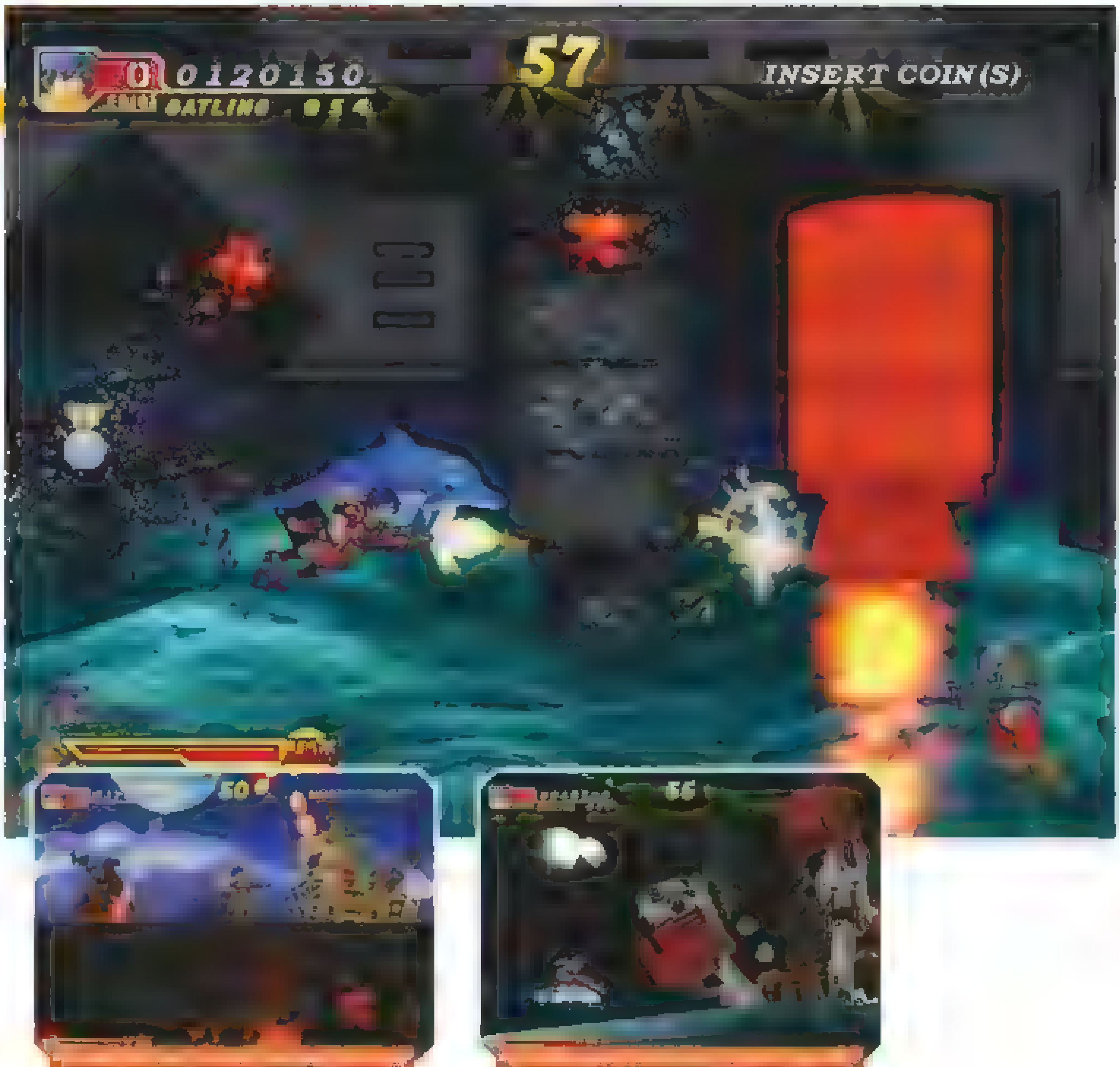
DOLPHIN BLUE

■ PUBLISHER: **SAMMY** ■ YEAR: **2003**

Everyone loves the Metal Slug series from Nazca and SNK, right? But wouldn't you like it more if, instead of being set in a weird sci-fi pseudo-Second World War style world, it was set in a kind of combination of the 1995 movie Waterworld, and the steampunk flavoured anime World War-alike world in the vein of something like Sega's Valkyria Chronicles series, and instead of riding around in tanks, you rode and swam alongside a friendly dolphin buddy? Then you would get something like Dolphin Blue.

And it really is a lot like Metal Slug, not just on the surface level of them both being loud, manic run-and-guns. As soon as you start playing, you'll recognise certain Metal Slug hallmarks: a completely useless default gun, a very satisfying and thankfully common machine gun power-up, knifing enemies instead of shooting them at close range, and so on. In fact, even though you don't get to ride in any tanks yourself, the enemy has plenty of them, in all shapes and sizes!

Despite its unoriginality, Dolphin Blue is still a worthwhile game, though. Of course, if you're going to rip off an existing game, it does help if you choose a game that's simple, fun, and much-loved as your unwilling muse. Metal Slug at its best had your character jumping, shooting and dodging all over the screen, wiping out crowds of hapless enemy infantrymen and blowing up the vehicles and buildings to which they're clung. Dolphin Blue has all that too, and it's just as much fun as it ever was, but now it's nautical. And that's as good a recommendation it can expect from anyone really: if you've played every actual Metal Slug game to death and want some more of the same, but wetter, seek out a Dolphin Blue cabinet.



MORE GAMES TO PLAY

» TETRIS GIANT

■ Serious players shouldn't allow themselves to be put off by the silly looking giant joysticks, as beyond the gimmickry, Tetris Giant offers a couple of fun (though also very easy) variations on the old shape-sorting classic, including a co-op mode designed for couples on dates. Plus, the soundtrack consists of a bunch of cute Japanese songs with a choir of kids singing about how much they love going to the arcade!

» RING OUT 4X4

■ Possibly the simplest 'proper' game on the hardware, it's a manic four-player car sumo game. That is, each player has a car, the cars are on a small round island, and the goal is to be the last one on the island after the others have all been pushed off. This of course leads to a few seconds of aggressive ramming, as well as the use of the snowplow-esque shunting devices attached to each vehicle. Fun, but with no longevity at all.

» JINGI STORM

■ This fighting game plays as generically as it looks, and it looks very generic. The one feature that makes it stand out is its unusual and mildly chauvinistic premise: all the playable characters are tough-looking male thugs, gangsters and hoodlums, each of whom is protecting a different female character, who only exists to look sad on a losing quote screen post-fight. Otherwise, this game is totally unnoteworthy and skippable.

» WILD RIDERS

■ This is an incredible-looking racer that combines the cel-shaded aesthetic of Jet Set Radio, the madcap high speed urban action of Crazy Taxi and the branching paths of Out Run into a fun, intense experience. The one downside is that it's so short and easy, and the branching paths are so similar to each other, that it doesn't have a lot to offer for repeat players. But that one good run you get out of it is a ton of fun!

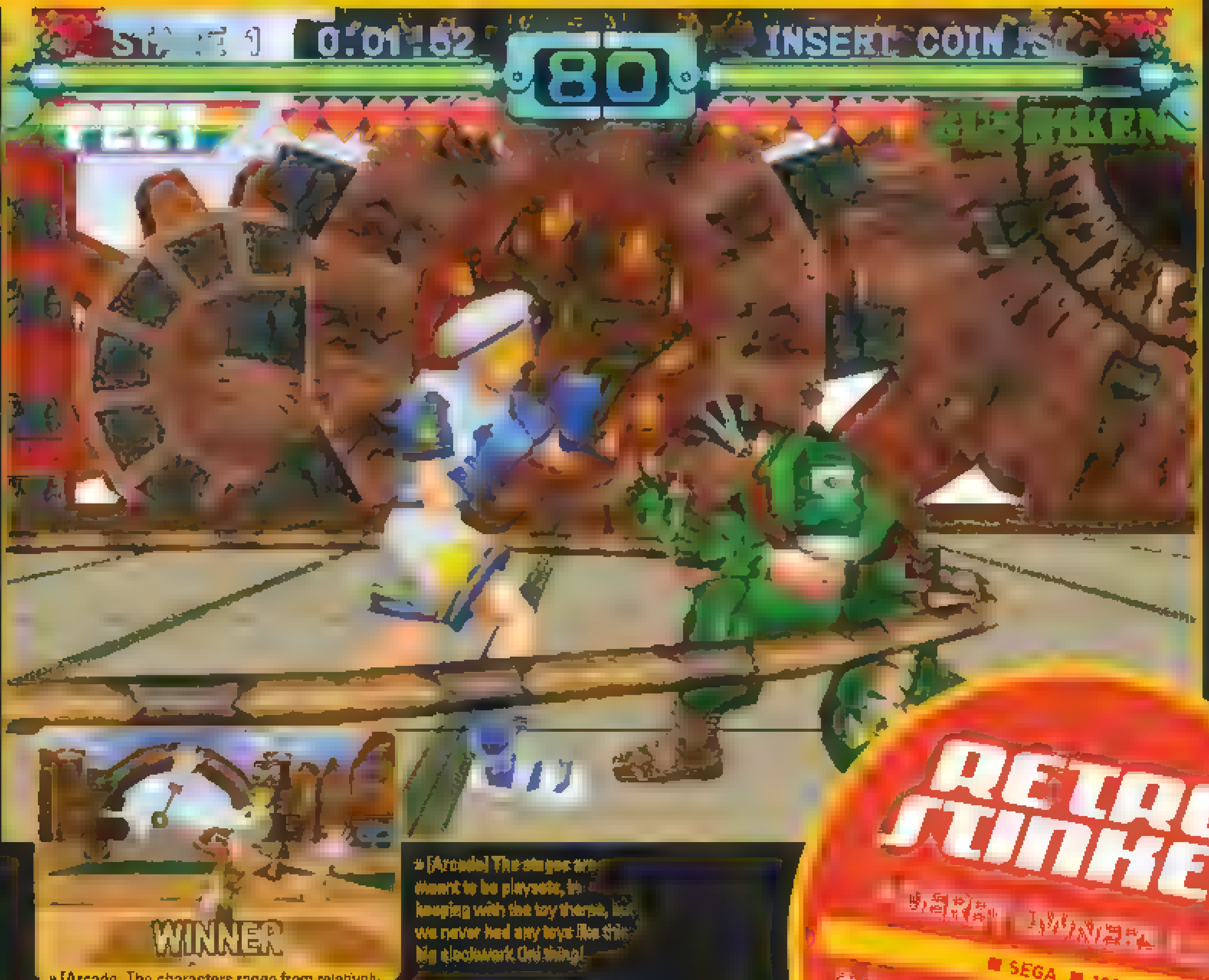
TOY FIGHTER

■ PUBLISHER: SEGA ■ YEAR: 1999

■ **It's obvious from a moment's glance (or even just by reading the title) that this game's aesthetic gimmick is that it's a fighting game about various action figures and dolls coming to life and fighting one another.** This idea is taken all the way, too, as each stage is a different playset, all in different parts of the same child's bedroom. But it's not just the setting that makes Toy Fighter stand out, as it's got some unique ideas mechanically, too.

Firstly, instead of fights taking place in rounds, each fighter has a health bar and five life points. Losing an entire health bar all the way down obviously costs a fighter one life point, but what's interesting is that in a move that seems to be inspired by real-life martial arts contests, being the victim of a successful throw costs two life points, and in a less realistic decision, falling foul of an opponent's limited-use super move costs three of them! So theoretically, an entire fight could be over in two moves.

Coupled with much smaller, tighter stages than you see in most fighting games, and it makes for a fast paced, tense fight, as you're trying to get one over on your opponent, quickly scrambling to get out of any throws you might get locked into, and so on. It's a shame and a mystery that this one never made it to the Dreamcast!



» [Arcade] The characters range from relatively normal looking dolls and action figures, to some more fantastic designs, to this guy

» [Arcade] The stages are meant to be playsets, in keeping with the toy theme, but we never had any toys like this big clockwork Owl thing!

RETRO JUNKER

■ SEGA ■ 1999

» DOKI DOKI IDOL STAR SEEKER

■ An interesting Minesweeper variant with a strict time limit and uses a hexagonal grid instead of the traditional squares. Furthermore, instead of gradually revealing numbers, your cursor tells you how many stars are surrounding it at all times. There's also a nice scoring system that revolves around flagging multiple stars at once. The idea of minesweeper in an arcade is so odd, though.

» SPIKERS BATTLE

■ Another Spikeout spin-off, this beat 'em up/fighting game hybrid feels a lot like a modernised take on the old Technos classic Renegade as you engage in small scale gang fights in enclosed urban arenas with various weapons that are strewn liberally all over the floor. It looks really cool, that's for sure. It plays great, and it's generally very highly recommended that you play it, given the chance.

» DIRTY PIGSKIN FOOTBALL

■ We have to admit that we're not exactly experts in how American football is supposed to be played, but luckily, like all good arcade sports titles, Dirty Pigskin Football takes a lot of liberties and offers a quicker simpler version of the game. It also eschews real teams, featuring squads of wrestlers, Vikings, aliens and other nontraditional players in huge, fantastical arenas.

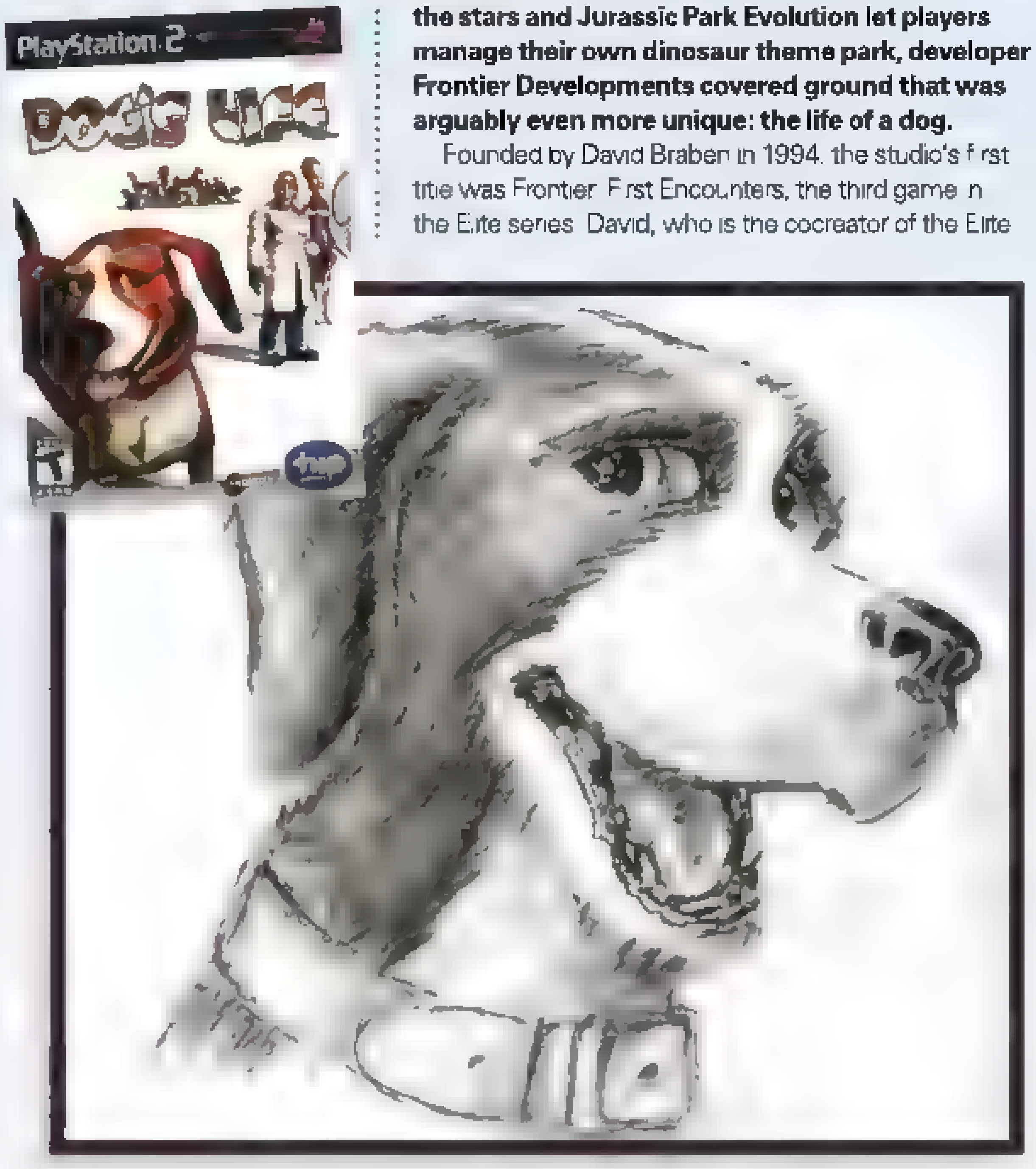
» MOBILE SUIT GUNDAM: FEDERATION VS ZEON

■ A great looking title set in the Gundam universe, you pick a side, pick which of their robots to pilot, then go out and fight the opposing forces. It's actually the first in the now long running Gundam Versus series, which since grown to massive popularity in Asia, though it seems like players in the west only started taking notice in recent times. It's still worth playing out of historical curiosity.

THE MAKING OF DOG'S LIFE

IN THE KNOW

- **» PUBLISHER:** SONY COMPUTER ENTERTAINMENT, HIP GAMES
- **» DEVELOPER:** FRONTIER DEVELOPMENTS
- **» RELEASED:** 2003
- **» PLATFORM:** PLAYSTATION 2
- **» GENRE:** ADVENTURE



As Frontier Developments celebrates its 25th anniversary, Retro Gamer grabs its trusty American Foxhound to sniff out the story behind one of the studio's most unique games

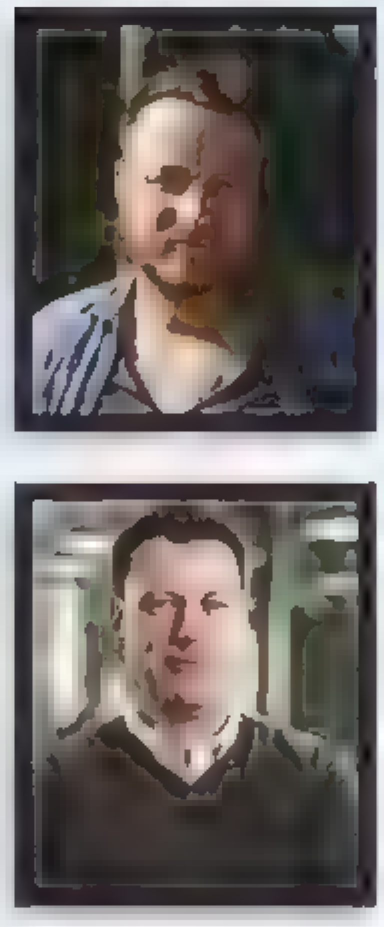
Words by Denis Murphy

Before Thrillville rocked the PlayStation Portable, Kinectimals gave gamers a reason to finally buy a Microsoft Kinect, Elite Dangerous ventured back to the stars and Jurassic Park Evolution let players manage their own dinosaur theme park, developer Frontier Developments covered ground that was arguably even more unique: the life of a dog.

Founded by David Braben in 1994, the studio's first title was Frontier: First Encounters, the third game in the Elite series. David, who is the cocreator of the Elite series itself was, and still is, the heart of Frontier. He has always gotten his hands dirty during development, as Jonny Watts (Dog's Life head of production) recalls, "When I joined Frontier, the first thing I remember – and don't forget David is a legend of the games industry to me – on my first day, the first thing I see in the studio is David sitting in the corner of studio making 'boc-boc-boc' sounds for the chickens that would become part of Dog's Life. You see your idol like that, it was a strange first day!"

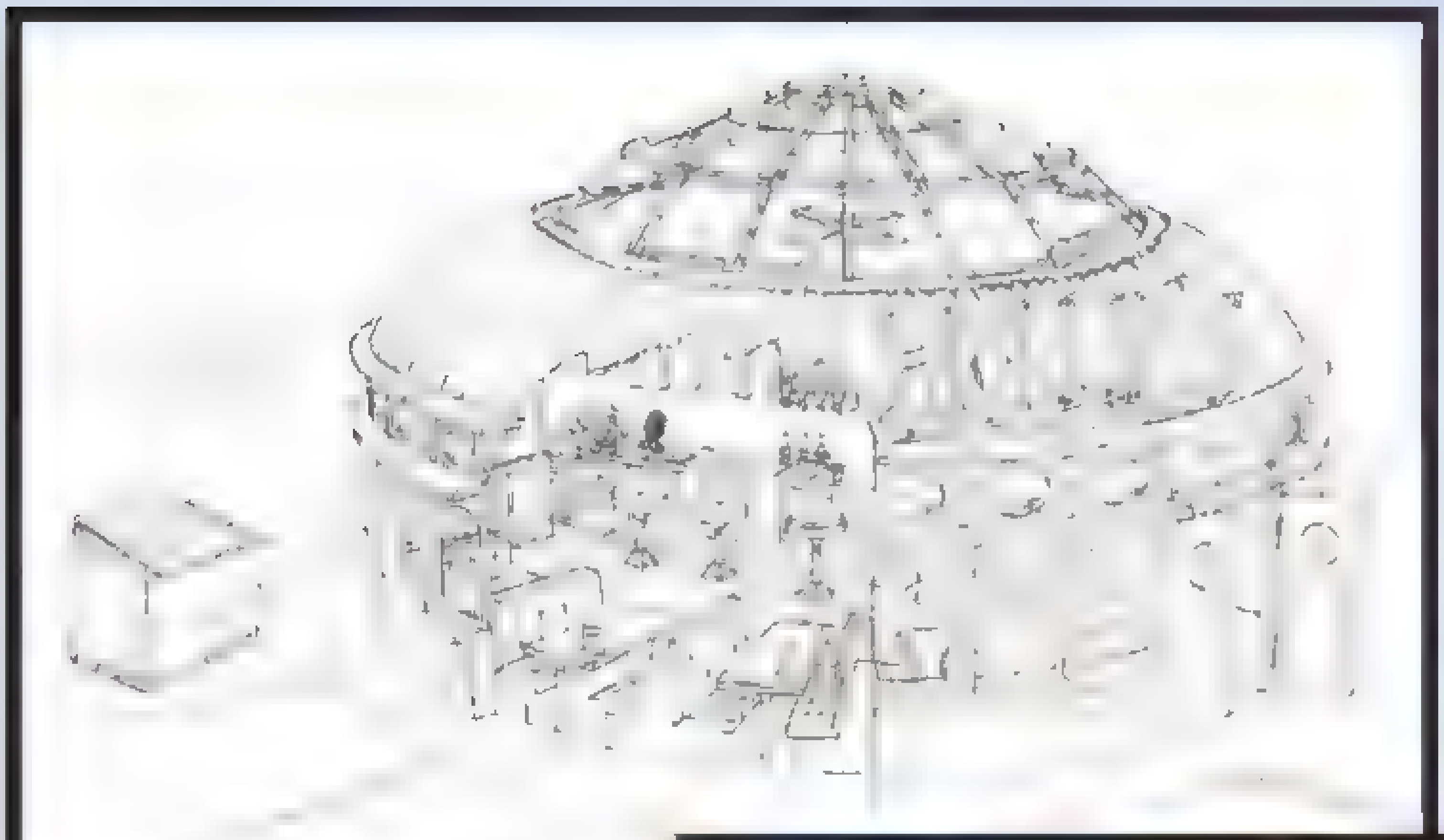
Dog's Life lets the player take command of man's best friend as he digs, runs, jumps, swims, plays and sniffs his way across a selection of open world areas and missions in the attempt to save his love Daisy who at the beginning of the game is snatched by dogcatchers. It's a simple story, but it sets up some fantastically inventive possibilities, and as soon as the player begins to control Jake, Dog's Life begins to reveal its charms rather quickly.

Championed by Sony in an era in which it was encouraging games to be different, instead of offering one large open world that was commonplace at the time, Dog's Life gives the player multiple small hub worlds to explore. As Jonny explains, "We had three main hubs – a village, ski resort and city, which themselves are divided in multiple play areas. We wanted to give three flavours of environment, with a nice progression where the game becomes more and more populated. Dogs are very at home in the



» Sam Denney (above) and Jonny Watts (below) continue to work at Frontier Developments today.

> "Technically there's a lot of animation to make it look and appear alive"
>
> Jonny Watts



» Concept sketch of the exterior and interior of Hollie's Diner.

» [PS2] The early levels of Dog's Life take place around a farmhouse and, compared to the city, are incredibly easygoing.

countryside, but a city can be quite a hostile place when you're only knee-high. It feels more dangerous and makes the dogs feel smaller as you progress. It's a journey and the peril increases throughout.” Sam Denney (artist on Dog's Life) echoes Jonny's thoughts. “Having lots of variety of levels gave us the opportunity to create more varied gameplay moments, from throwing snowballs on the ski slopes, to the platforming in the town. It gave the game a less repetitive feel and challenged the players in a more interesting way. It also gave the game a sense of journey and momentum.”

Visually, the game drew from rich sources of inspiration such as Pixar, Aardman and classic Disney films. Sam explains his approach, “The visual style was interesting in that we wanted to create a fun, colourful world but also to have a level of reality to the animals to ground the game and give the player a sense of connection to the characters. This was the earliest example of the kind of crossover of styles that Frontier Developments has embraced and nurtured over the years. You'll see it very clearly in Planet Coaster, where very realistic rides meet highly stylised characters.”

However, one of the Dog's Life's most impressive visual flairs is its animation, namely that of Jake and the other playable breeds in the game. From simply running around, jumping into lakes, playing fetch with yourself, being able to urinate in two different directions and even having the ability to defecate and then throw it at people, there's an unbridled sense of play in the game, from the wholesome to the downright juvenile. Controlling these canines throughout a myriad of missions, minigames and activities makes for a highly playable and rewarding experience.

But behind this sense of effortless wonder, the team at Frontier found it difficult to nail the movements of the dogs in the game. “Technically there's a lot of animation to make it look and appear alive before you even get to the challenge of controlling a quadruped in a game,” Jonny explains. “Remember that at the time there were very few animals in games, even in the early PS2 era the benchmark would have been Epona in Ocarina Of Time from the N64. Spyro played with quadrupeds but they didn't plant their feet the way we wanted our dogs to. Back when I started at Frontier, Dog's Life was still a PlayStation game, and it was a long time in development. On my first day with Frontier I saw tests with our dogs running around the V2000 landscapes. Dog's Life actually uses some of the Inverse Kinematics tech we developed for V2000 to power the mechanical spiders running around the landscape. The dogs were able to move really organically around the landscape planting their feet correctly on uneven terrain thanks to us developing that V2000 tech.” In fact, a single dog in Dog's Life uses more than half a dozen techniques at once. From blending, layering, inverse kinematics, lipsyncing, looped and single shot sequences to boned animation, Frontier Developments used all of these techniques in unison to portray a believable quadruped. Jonny continues, “Players are very good at spotting repetitive movements and canned animation. You never see the same performance twice. We gave

FOLLOWING JAKE'S NOSE

A look into one of Dog's Life's best features, Smell-o-vision

One of a canine's strongest assets is its nose, so it makes sense that this was worked into *Dog's Life*. One of the more interesting features in the game is the ability to activate Smell-o-vision, which gives the player a chance to see the world through the eyes of a dog.

Viewable from a first-person point of view, different smells in the world are colour coded and must be collected across a level in order to progress. For instance, collecting a certain number of colour-coded smells will unlock competitions against other dogs in order to take control of them, which range from races, Tug Of War and obedience trials.

But beyond this smells can be found throughout the game for a number of reasons. From seeing smells of humans emanate from their bodies, getting clues through previously left smells within the environment to using the smokey trail of a running fox in order to accurately follow its high running speed. Smell-o-vision adds an extra dimension to gameplay. Jonny Watts explains Frontier Developments approach with Smell-o-vision, “Dogs don't see the world we do, so first of all, Smell-o-vision was an emotional thing. We wanted players to feel like they were seeing the world through the eyes (or nose) or a dog. But from a gameplay standpoint, it was a great way to declutter the environment and not pollute the spaces we had created; you go into a whole separate vision mode to see the very 'gamey' aspects of the game – unlocking minigames and so forth. I thought it worked quite well.”

a lecture on the game at Bournemouth University and I remember one student asking us, 'Are those dogs alive?' I was stumped by the question at the time, but I think there's something to it – the dogs are so convincing at times that you have to look twice. They certainly look like they're alive. That pedigree carries through to this day. Frontier still excels at animal animation, and there's a little bit of Jake in Jurassic World Evolution's T-rex."

The game expands its playable canine roster far beyond Jake, as over the course of the game the player must utilize a total of 15 additional dog breeds, with each one serving a specific purpose based on their own unique skills. As Jonny describes it, "To me it's very basic game design, but it works beautifully; you see it and you immediately understand it. In many ways it's very similar to what TT's Lego games do with character abilities and attributes." The level of game design simplicity works remarkably well in Dog's Life. The chihuahua can access tiny areas, the St Bernard can move heavy objects and the border collie can round up sheep, and as soon as the player unlocks a dog breed their use becomes immediately apparent. Simple, fun and rewarding.

Though the game is incredibly lighthearted, it does contain a reveal during its final level that still often pops up online as one of gaming's best, and darkest, twists. During the last level, Jake discovers that all of the dogs that have been taken by the dogcatchers are being turned into cat food by the games villain. Sam dishes out the origins of the level, "There was one level that probably shouldn't have made it in and that was the final level. When I joined the game had been in development for a long time but we still didn't have a final level. Back then roles in the games industry weren't quite as formalised as they are now, so the line between art, design and writing wasn't so clear, and I was asked if I had any ideas for the game's finale. I wanted there to be a bit of an ironic twist at the end, so we came up with this idea. I drew out a very basic sketch of the cat food machine and Andy Gillett (designer) just really went with it. I think his sense of humour was a lot like mine. Those sketches are actually in the game, in the final level. When you see the diagrams ('dog goes in, catfood comes

BREEDS APART

Beyond Jake, Dog's Life contains 15 controllable breeds

CHIHUAHUA

■ The first dog the player can best and take control of is Lopez. The player uses this plucky chihuahua to gain access to the house via a tiny dogflap.

DALMATIAN

■ Jake is not the best of swimmers, so this spotty breed comes to his aid to help him catch an irritating wayward goose.

BORDER COLLIE

■ As expected, the border collie helps Jake round up sheep for the local farmer, which will unlock more precious bones!

BULLDOG

■ The bulldog, thanks to its stubby and stocky stature, is used to enter chicken coops to find pieces of a torn-up newspaper.

PUPPY

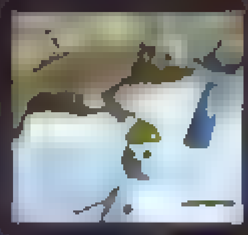
■ The player must use Snooky the puppy to deliver a note to a little girl, on a path previously blocked to Jake. After all, who can resist a puppy?

DOBERMAN

■ Once bested by Jake, the player must use the doberman to scare the shop owner into handing over some delicious bones.

BOXER

■ The boxer, compared to Jake, doesn't slip around when running at full speed on the ice, which is helpful near the cafe.



WEIMARANER

■ The weimaraner, which the player can control at the ski slope, is the best breed at jumping in *Dog's Life*. Useful when trying to find a particular character's hat.

HUSKY

■ Just like the boxer, the husky doesn't slip on the ice. This is needed when walking across a slippery roof in the high street.

BULLMASTIFF

■ This massive dog can help Jake by being able to push large objects, namely the large boxes at the mountain top.

ST BERNARD

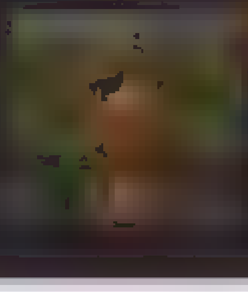
■ Armed with the usual brandy barrel around its neck, the player takes command of the St Bernard to rescue an injured character.

PINSCHER

■ Once beaten, the player must use the pinscher to dispatch all of the rats that are terrorizing the owner of the Hotel.

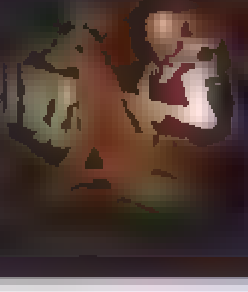
GERMAN SHEPHERD

■ Once the player controls the German shepherd near the police station, they must take part in foiling an armed criminal.



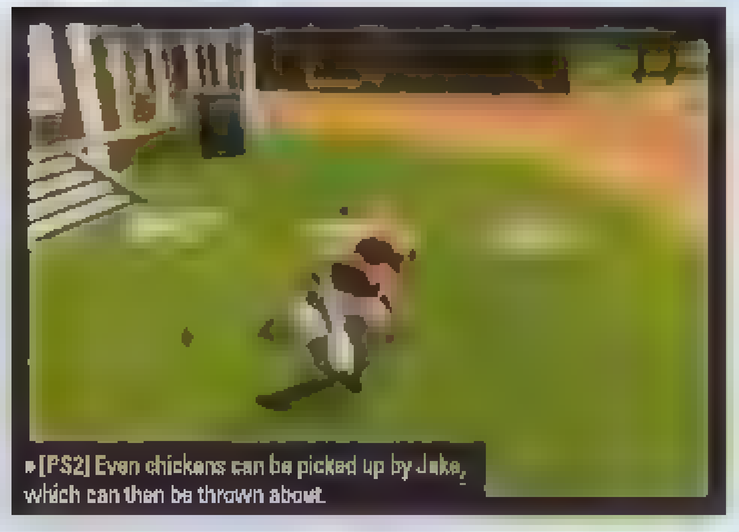
WHIPPET

■ The whippet helps Jake track down a litter of kittens that have been lost across the area surrounding the park level.



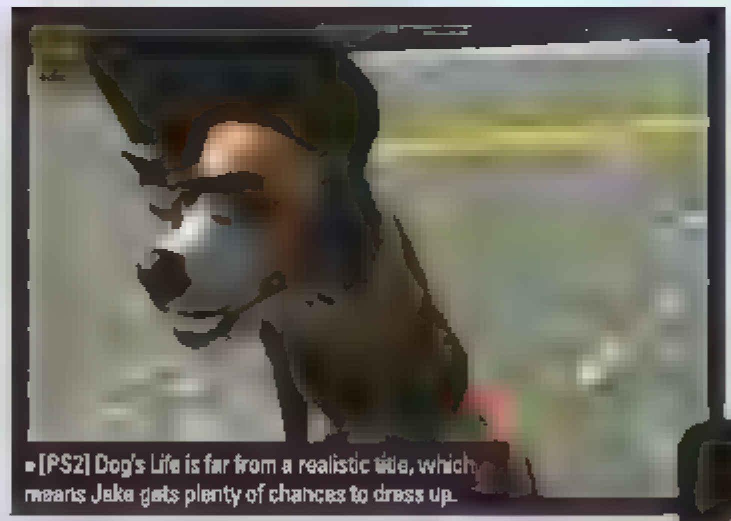
GREYHOUND

■ The greyhound is by far the fastest breed in *Dog's Life*, and the player will need him to quickly swipe the bandits' bag of loot.



» [PS2] Even chickens can be picked up by Jake, which can then be thrown about.

» [PS2] The Dogcatchers are a dim-witted bunch, led by the nose by Miss Peaches.

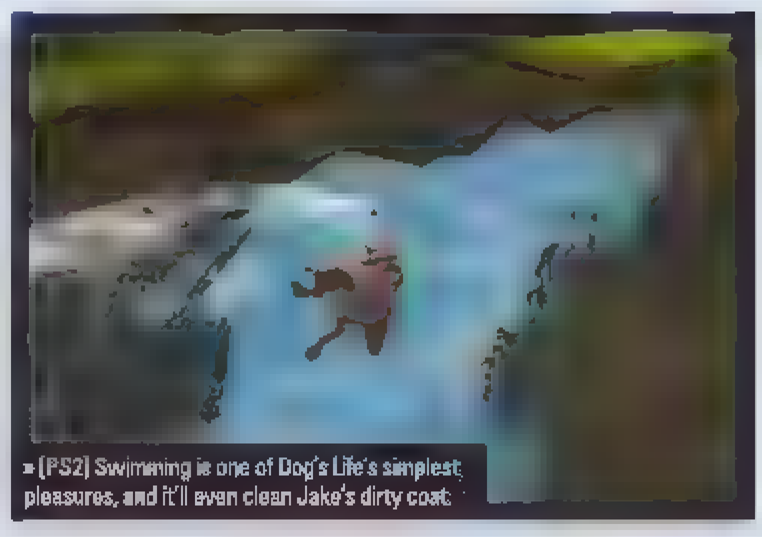


» [PS2] Dog's Life is far from a realistic title, which means Jake gets plenty of chances to dress up.

> **Back then roles in the games industry weren't quite as formalised as they are now**
>
> Sam Denney

out') those are the very first concepts for the final level." Though the game got a PEGI 3 rating in Europe, in the US it was upgraded to a T rating from the ESRB. But it wasn't because of this final grisly reveal. Instead, it was because if the player stands next to the Grandpa character as he sleeps, he'll mutter some very innuendo-laden dialogue about his youth.

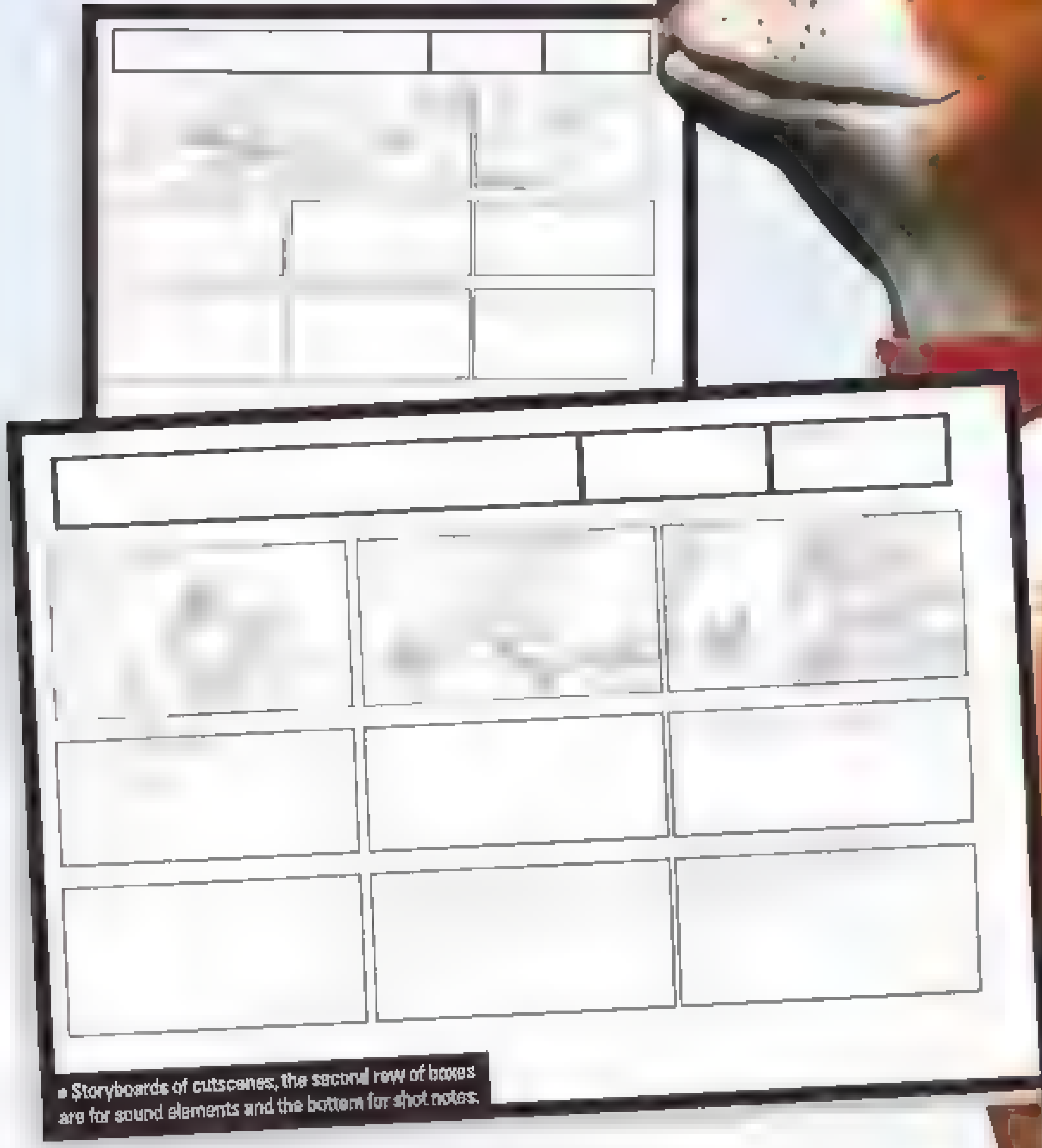
Looking back at Dog's Life, it's easy to overlook just how important the title was the evolution of Frontier Developments, as it set the groundwork for some of its more recent titles. Sam looks back at his time on Dog's Life fondly, "It was an invaluable experience for someone who was new to Frontier. I was able to be one of a few artists that were finishing the game which offered me a lot of opportunity to not only make a big impact on the visuals but also to prove my worth to my new studio. It was also the beginning of something that's become a real speciality for Frontier: bringing animals to life. Dog's Life is where we began developing the techniques that have made games like Kinectimals and Jurassic World Evolution possible. You can trace a 15-year-long line from A Dog's Life's dogs to Jurassic World Evolution's dinosaurs." Jonny chimes in with his thoughts on the experience, "This game was for a broad audience, but especially for my children, so it has a very special place in my heart. I can also say it's the most bizarre game I've ever worked on, but I remember it very fondly. We definitely tried to do something very different in a number of ways, but I think it all feels quite coherent. It's a game that's mentioned frequently by players when we meet, I think it was a part of a lot of people's childhoods."



» [PS2] Swimming is one of Dog's Life's simplest pleasures, and it'll even clean Jake's dirty coat.

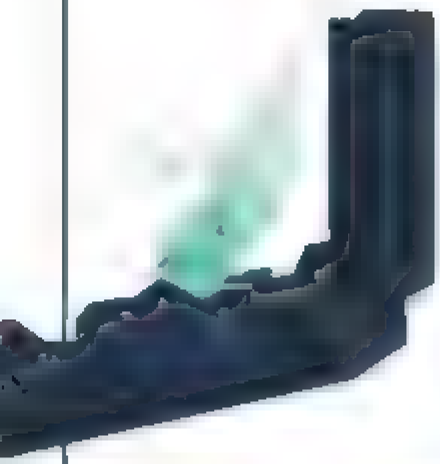
With Frontier Developments very successfully bringing back the Elite franchise with Elite Dangerous, and Jake himself declaring to the player at the end of the game, "See you next time!" it begs the question, will we ever see Dog's Life 2? Jonny explains, "We would all like to do a sequel, even now. Dog's Life is a game that's still really close to our hearts. We often talk about how good we could make Jake and friends look with today's technology."

As a footnote, Sam recalls a moment from development that nicely sums up the carefree mischievous nature that the game conjures up, something that was quite evidently present during the creation of the game itself, too. "Dog's Life is also the only time I've ever been tasked with modelling a poo," he tells us. "I struggled with it for many hours to get the animation just right, because I knew it would come under a lot of scrutiny. I remember sitting with the lead animator and watching a dog pooping with his knees trembling, and then watching the animation played in reverse, back and forth for our amusement." Indeed, we think it's high time for a sequel. *



» Storyboards of cutscenes, the second row of boxes are for sound elements and the bottom for shot notes.

ARCA'S



IN THE KNOW

- **PUBLISHER:** REBELLION
- **DEVELOPER:** DREAM REALITY INTERACTIVE
- **RELEASED:** 2018
- **PLATFORM:** PS4, PC
- **GENRE:** PUZZLE

Sometimes in order to innovate you need to look to the past. Dave Ranyard reveals how his team took inspiration from several retro classics to create their new VR game

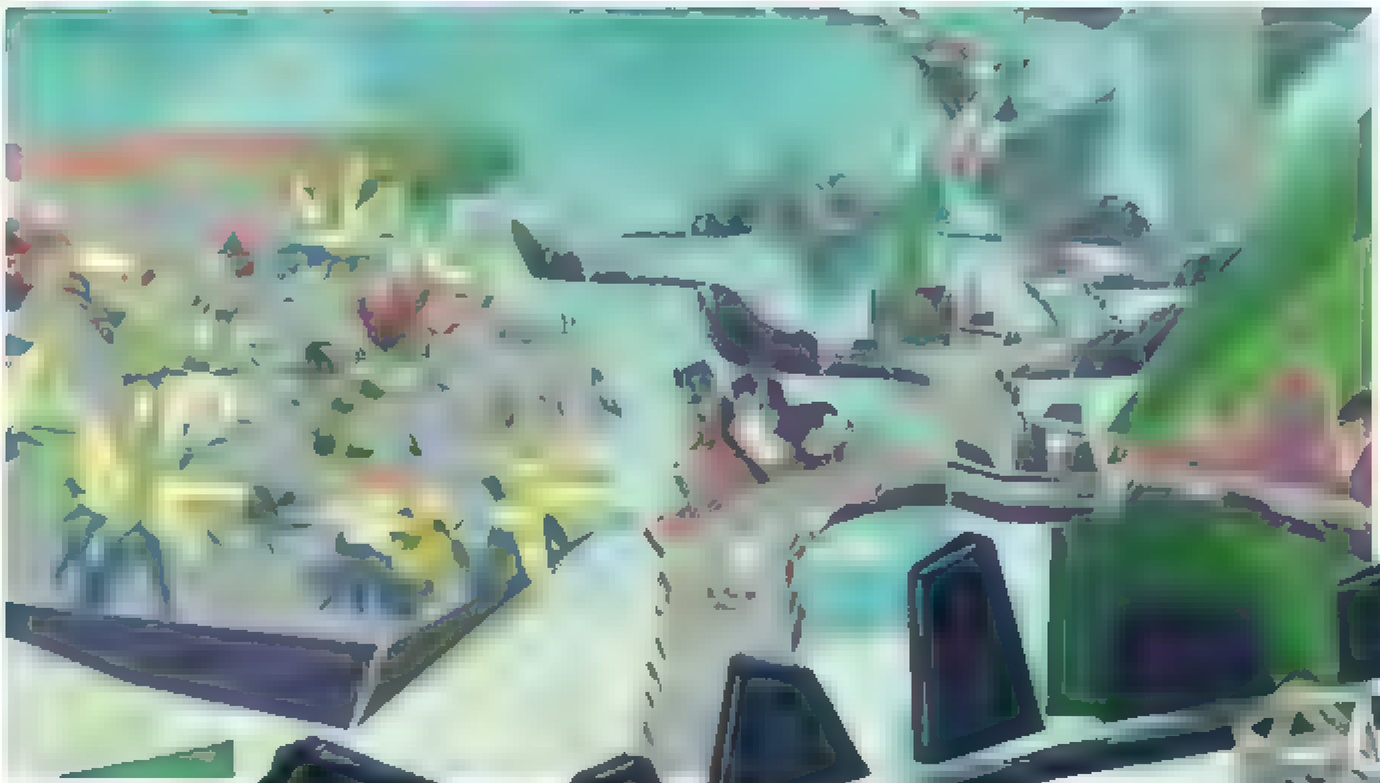
Words by Darran Jones

We're big fans of virtual reality and we'd argue that it's one of the most exciting things to happen to videogames since we first started blasting Space Invaders out of the sky in 1978. It offers a sense of immersion that can't be found in other videogames and it can often transform even the blandest titles into unforgettable gaming moments.

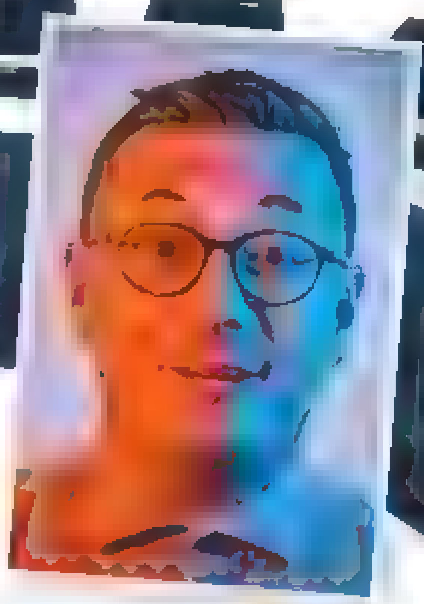
And yet it's important to remember that for all that impressive tech, many of the greatest VR games are exceedingly old school in either their presentation or design. Battlezone VR adopts an aesthetic that wouldn't look out of place in Eighties movie Tron, Rush Of Blood is nothing more than a good old-fashioned lightgun shooter, while Tetris Effects is… well, it's Tetris. Which brings us to Arca's Path VR, the latest VR experience from Dream Reality Interactive, an engaging puzzle game that feels new in the experience it offers but is not afraid to pay tribute to the classic retro games of old.

The story of Arca's Path revolves around a child trying to find her way home. Trapped inside a virtual world by an evil witch, Arca must navigate a series of beautiful-looking crystalline landscapes that will instantly make you think of past classics such as Marble Madness and Spindizzy. Making these comparisons in your head aren't coincidental either, as Dream Reality Interactive's cofounder and CEO, Dave Ranyard, reveals. "We wanted to hint at some classic gaming influences, but with the immersive nature of VR," he begins.

It's not just a case of Arca's Path looking like these 8-bit classics, the game also draws on their physics-based mechanics, requiring the player to master control of their avatar to skilfully navigate around the 25 cleverly constructed levels. "It was really about controlling a ball – it gives you a simple but instantly gettable mechanic," explains Dave. "Everyone has played with a ball and understands how they work – so we knew if we could tie it to a great physics systems and really polished the mechanic, it would work." There's another reason Arca has similarities to Marble Madness and it's a personal one. "I know Mark Cerny, creator of Marble Madness, key developer of Sonic The Hedgehog and architect of the PS4," continues Dave, "so hopefully, this gives you some idea of where our inspiration came from."



» [PS4] Arca's Path can be quite challenging at times so you'll need your wits about you.



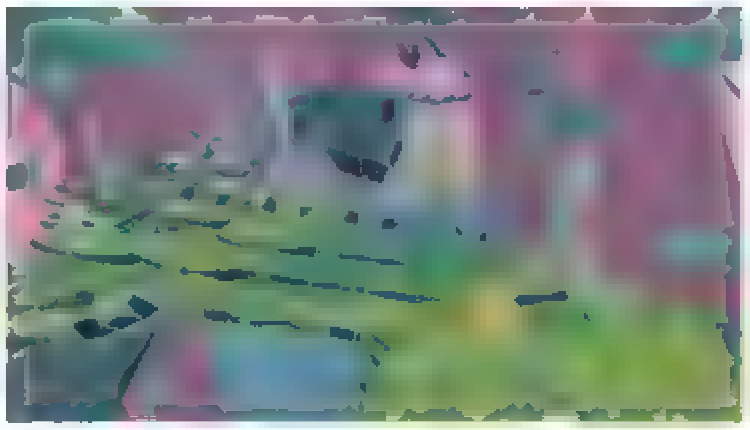
» Dave Ranyard's new virtual reality game is inspired by a variety of retro classics.

PATH™ VR

Interestingly, while Marble Madness and Spindizzy are obvious connections to the abstract, physics-based game, a few other titles had quite a big impact on Arca's Path and they're not the type of games you'd necessarily expect. "I am actually a huge Sonic fan," admits Dave, "and there are some hints to classic Sonic in there – the mix of pace, the fun half-pipes and the platforms themselves. Plus Super Monkey Ball is great fun. We wanted to turn this mechanic on its head – or rather, your head and give you a completely different experience of a classic."

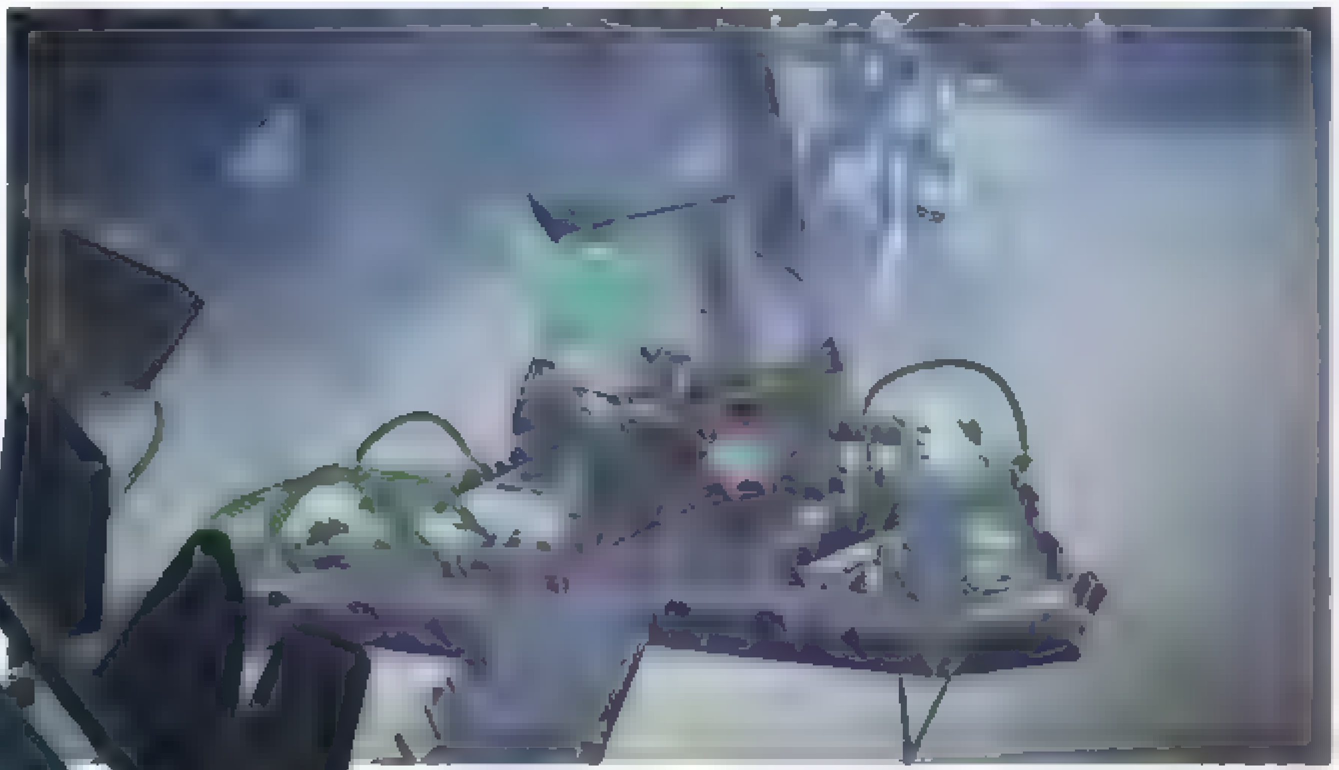
Of course, any physics-based games lives or dies based on its inertia and Arca's Path is no different. Games like Super Monkey Ball and Marble Madness feel superb to play, mainly because they give you so much control over your in-game avatar and Dave is confident that gamers will be more than happy with the way Arca's Path plays. "I have to defer to the rather talented programming and design team on Arca's Path here," he tells us. "They put lots of effort into making it feel just right. We tried lots of different ways of implementing the mechanic, like moving the world (which is what Super Monkey Ball does), but for us, the mechanic we settled on is the best for VR. I am a huge believer of doing one thing really, really well – we often see an okay mechanic have several other mechanics piled on top to try and improve it, but if the core is not fun you are going to struggle."

The mechanic Dave is referring to is quite an unusual one. Rather than use a traditional controller to navigate your way around the ruthlessly designed mazes of Arca's Path, you instead use the actual headset. It's a little weird to begin with, but once you get used to the roll and movement you'll wonder why you've never experienced anything similar. "Once you have played a couple of levels you just feel where to roll the ball," agrees Dan. "Plus it's a completely new experience – it feels like mind control. Arca's Path is the easiest game I have ever demoed at events – you simply put the headset on someone and they pick up the rest. There's very little tutorial or even in-game text."


» [PS4] Arca's Path's headset-based movement takes a while to master, but soon becomes very effective.

While aspects of Arca's Path will seem very familiar to some gamers, it's worth noting that creating VR games is a completely different concept to making traditional videogames and as a result there are certain things that need to be taking into account while designing them. "Comfort is the most obvious," continues Dave. "Any decent [VR] game should be well designed enough to accommodate player comfort. There are other things too – we realised that people love to look around in Arca's Path so we added a pause feature to let people do so without spoiling their fun."

And ultimately that's what Arca's Path is, a lot of fun. It's not recreating the wheel and it's based on a concept that's been around since we were using little wooden boxes to move ball bearings around whilst trying to avoid holes, but it turns out that that's no bad thing at all. ★


» [PS4] You'll get a distinct Spindizzy vibe while making your way through some of the game's stages.

BACK TO THE FUTURE

More virtual reality games with links to the past

UNTIL DAWN: RUSH OF BLOOD

■ This PSVR launch game remains the most satisfying lightgun game to play on the system. It's a crying shame that Sony never greenlighted a sequel as Darran still plays it regularly today. Just don't play it on your own!

TETRIS EFFECT

■ We were tempted to go with the *Rez Infinite*, but Tetsuya Mizuguchi's reinvention of *Tetris* is an excellent example of how a classic game can be transformed by VR. You've never been 'in the zone' until you've experienced it in virtual reality.

WIPEOUT OMEGA COLLECTION

■ Sony's collection of *WipEout* games already represented excellent value, but its free VR update turned the *Omega Collection* into an essential purchase. Being on the starting line in VR and seeing ships move over your head is awe-inspiring.

In the chair with...

TONY TAKOUSHI

Whether he is coding them, writing about them or bringing them to market, Tony 'TAKS' Takoushi loves games. He tells us about his four-decade-long affair

Words by Paul Drury

You may well recognise Tony's distinctive surname from various Eighties videogame magazines, notably C&VG, where he started the 'Mean Machines' column which would evolve into the famous standalone publication. By the late Seventies, he was transfixed by home computers and wrote several 'Best Software' guides for such micros as the VIC-20 and Spectrum, and freelanced for popular mags like Big K and Personal Computer Games. He programmed a trio of his own original games in the middle of the Eighties before joining Sega as European product manager. He moved to Australia in 2004 and stepped away from the games business two years ago, but we're delighted to report TAKS is back with a new game, Freefall 3050AD, available now on Steam and the Windows Store.

Let's start with a really important question. Did you ever get drunk with Jeff Minter's mum?
[Laughs] Oh God! I'd forgotten all about that. I don't drink – I just don't like the taste – but I had a cold so Jeff's mum gave me this apple schnapps … and my brain exploded! I was spaced out, really woozy.

You didn't get thrown out the Minter family home, we trust?
Oh no. I met Jeff in 1981 so I've known him for years. I'd jump on the train to Basingstoke to visit him and became a friend of the family. His mum and dad were so kind and I even had Christmas dinner there once.

Didn't Jeff include a level in Revenge Of The Mutant Camels at your request?
Sidney and the portalavs! [Laughs] In my accountancy days I would use the toilet in the morning and almost faint [...] let's just say my old boss had 'a problem'. I told Jeff and he said, "I'll put that in the game!"

The
Tony Takoushi
GOSSIP...GOSSIP...GOSSIP

» Tony wrote as The Ferret in Big K. Those shades are fooling no-one

You did an interview with Jeff for issue 11 of Big K and it really felt like a conversation – you asked him about his 'old hippie style' and his attitude to the Greenham Common Women's Protest.
When I sent in that piece, Tony Tyler, the editor of Big K, said to me, 'This is really good stuff. You've gone down roads where others don't usually go.' I wanted to tell people that played the games about the people that were actually making them, which back then was usually one individual in their bedroom.

That approach reached its zenith when you grabbed Jeff, Tony Crowther, Andy Walker and Matthew Smith for a 'Software Superstars' talk.
I always tried to do something a bit different, and I was very lucky to know all these people because I was there in the early days. I really wanted them to have a proper discussion … and I wanted to get to know Matthew Smith a bit more as by then [1985], he had pretty much become a recluse and was really hard to get in contact with.

We've interviewed Matthew several times for Retro Gamer and it can be a little difficult getting him to open up.
Yeah, he was quiet and he tended to look round the table a lot during the interview. He did engage when he had something to say. I could see in his face that he was proud to be part of this special group that made special games.

DAYTON
SONIC
HEDGEH

> I wanted to tell people that played the games about the people that were actually making them
>
> Tony Takoushi

> They were so talented. I was just a lackey – who was I to be mentioned in the same breath as these guys?
> Tony Takoushi

Well, they say you should never meet your heroes, Tony.
[Laughs] It was great to sit down with these four people whose games I truly loved. I felt huge pride to be at the same table as them that day, though I wish I'd got Nick Pelling and Paul Shirley there too and Paul Woakes, though he'd never have come to something like that.

We were very sad to hear Paul had passed away.
I'm so sorry he's gone. I got to know him and the Novagen guys because I saw quality there and I wanted to do anything I could to support their games and get them coverage. Paul was excruciatingly shy and it took a while to make a connection with him. He'd sometimes struggle to look you in the eye, but he was a lovely guy. I remember his house was full of videos and he was a complete Star Trek nut. I'd go up and spend a day or so with him – like when they were working on Damocles. An amazing bloke and I'm so sorry to hear he's passed.

And he will be missed. That Software Superstars piece appeared in the final issue of Big K. What went wrong?
Maybe it was ahead of its time. It was edgy in terms of its look and feel but they never quite got the advertising right. Tony Tyler the editor had some amazing ideas. He was a bit of a hippie, bless him, and very bright and talented.

» [C16] Frenesis does indeed get frenetic

You wrote freelance for Personal Computer Games as well, which also went under in 1985.
It's the Takoushi curse! If you want your mag to go down the swanny, get me on board. I suppose it was strange. PCG was packed with adverts, Big K not so much because it was a bit out there. I think maybe C&VG was so well entrenched, it was hard to compete. They did a lot of things right on that magazine.

How did you get involved in games journalism in the first place?
I suppose it goes back to playing Space Invaders in the pub in 1978. That was a revelation. Then my cousin got a TRS-80 which had Galaxian and my brain exploded. You could play these games at home! When I saw a Commodore PET in the summer of 1979, I knew I had to have one – even at £623, which was a fortune. I got half a dozen jobs, worked like a demon and got the money together. I had started an accountancy foundation course at North London Polytechnic which I didn't enjoy but they did have a computer lab and a guy taught me about machine code. I still remember the thrill of drawing my first line across the screen! I was hooked.

How did that lead to writing about games?
I wanted to have every single game for the PET, so I was ringing around companies in the UK, the USA, anywhere, to get software. I built up a collection really fast. I wrote a letter to Microcomputer Printout magazine, edited by Richard Pawson, going on about all these amazing games and he wrote back saying I was the sort of person they needed! My first ever published article was reviewing loads of PET games, and later I did the same for the VIC-20 and Atari. That led on to me doing several 'Best Software Guides', reviewing hundreds of games for computers like the Spectrum and C64. Those books were done through VNU and they said they were starting a magazine called Personal Computer Games and did I want to be part of it?

We imagine you jumped at the chance.
Of course I did, it sounded cool! They set us up in an office in Oxford Street in London and one day this guy walks in with blonde hair, a green bean two-piece suit and Jesus boots. I thought, 'Who the fuck is this guy?' Turned out he was Chris Anderson and he was our editor. He'd come up from Dorset Radio or something and I kept thinking, 'What the fuck does he know about games?' Shows what the hell I know! He was really bright and he had vision. He had the nous and commercial sensibilities to put together a good bunch of people to put together a good product. It didn't matter that he didn't really know about games.

We hear Chris did alright for himself after PCG and you also went on to join the 'daddy of videogame magazines', Computer And Video Games.
After Big K and PCG had folded, C&VG was kind of the only multiformat games mag left so I went in to see the

SELECTED TIMELINE

MAGAZINES AND BOOKS
- **BEST SOFTWARE GUIDE: SPECTRUM** [1983]
- **BEST SOFTWARE GUIDE: VIC-20/C64** [1983]
- **BIG K** [1984-85]
- **PERSONAL COMPUTER GAMES** [1984-5]
- **COMPUTER AND VIDEO GAMES** [1985-86]
- **OFFICIAL SEGA SONIC 2 GUIDE** [1993]

GAMES
- **HYPERFORCE** [1985] C16, C64, AMIGA, ST
- **STARBURST** [1986] C16, C64, ATARI800
- **FRENESIS** [1987] C16, C64, AMIGA, ST
- **FREEFALL 3050AD** [2018] PC

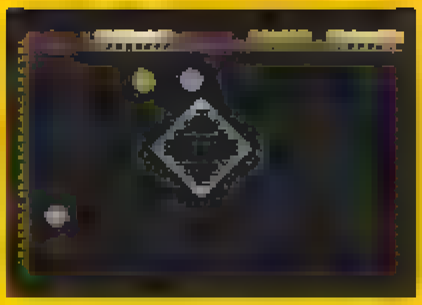
E01226 STATRONS-3 PODS-08 PULSED
» [C16] Hyperforce was made in Tony's bedroom and is extremely abstract in its design.

FIVE TO PLAY

A selection of triumphs from TAKS

BIG K

■ Something to read rather than play, you can find many of Tony's articles for this anarchic Eighties videogame magazine on archive sites. His Jeff Minter cover piece for issue 11 is a great read as is the Software Superstars feature which graced the final issue.



STARBURST

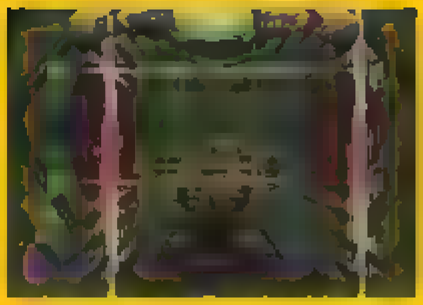
■ Not an inventive use of the Opal Fruits licence, but a shooter of sorts featuring bouncing balls (sorry, 'Plastron Boulders') and abstract visuals. Released through Ariolasoft, Tony's second title shows an eagerness to experiment – and bemuse.

HYPERFORCE

■ Of the trio of games Tony wrote in the mid-Eighties, this is the best, especially the 16-bit versions, which build on the ideas introduced in *Frenesis* and add more focussed action and some fancy background graphics by Mo Warden of Novagen fame.

SONIC 2

■ Do you remember where you were on Sonic Twosday? Tony does. He was European product manager at Sega when this excellent sequel was launched, and he even wrote the official guide book – which is handy if you want to collect every ring.



FREEFALL 3050AD

■ It began on the ill-fated Nuon console, almost made it to the Xbox and is finally available to play on Steam. It's an inventive, original and decidedly hardcore blaster with some trippy visuals, so do visit freefall3050.com and tell Tony we sent you.

editor Tim Metcalfe. Lovely guy. He offered me £250 a page to do a comment column and reviews. That was a fortune back then!

It still is today, Tony. Was it a very different atmosphere to the previous magazines you had written for?

Yeah, Big K had quite corporate offices but with C&VG, there was a lot more energy there. I was just a freelancer there for about a year and a half but Tim told me before I left how they looked forward to me coming in because I was so enthusiastic. You remember what an exciting time it was.

That enthusiasm for games really came across in your writing.

I was in an extraordinary position as over 90 per cent of the time, I got to choose the games I reviewed. I could just tell Tim what I was planning to cover in my column and he'd say, 'Fine'. When I was on PCG, I was raving about the MSX – Circus Charlie, Nemesis, all these great games – so I asked Chris Anderson if I could do an article on them and he agreed. I did this gushing piece. I loved those games – they were crazy playable.

What if you were asked to review a game programmed by someone who was a friend and you really didn't like it? That could be awkward, surely

Yes of course that was a possibility but as I said, I was lucky to get to choose which games I reviewed. If I thought a game sucked, I wouldn't review it. I'd tell my editor I wasn't too keen on it and maybe someone else might do it? But to be honest, the people whose company I really enjoyed all did good software – it was a chicken and egg situation, I think.

Were videogames pretty much your whole life at this point?

Well, I met my wife-to-be in 1981 so I had a partner but yeah, I was pretty much a workaholic back then. Still am. From 1985 to about 1988 I used to program. I had all this stuff in my head I wanted to do. I'd start coding at 8pm at night and work through till 5am or 6am in the morning. I'd have breakfast, take the phone off the hook and sleep till 2pm. My girlfriend complained she'd only get to see me once a week. So I upped it. To twice. I got all that programming out of my system in those three years – and produced these little, cruddy 8-bit games.

Let's talk about them! Your first was Hyperforce in 1985, a strange, abstract game… why are you laughing?

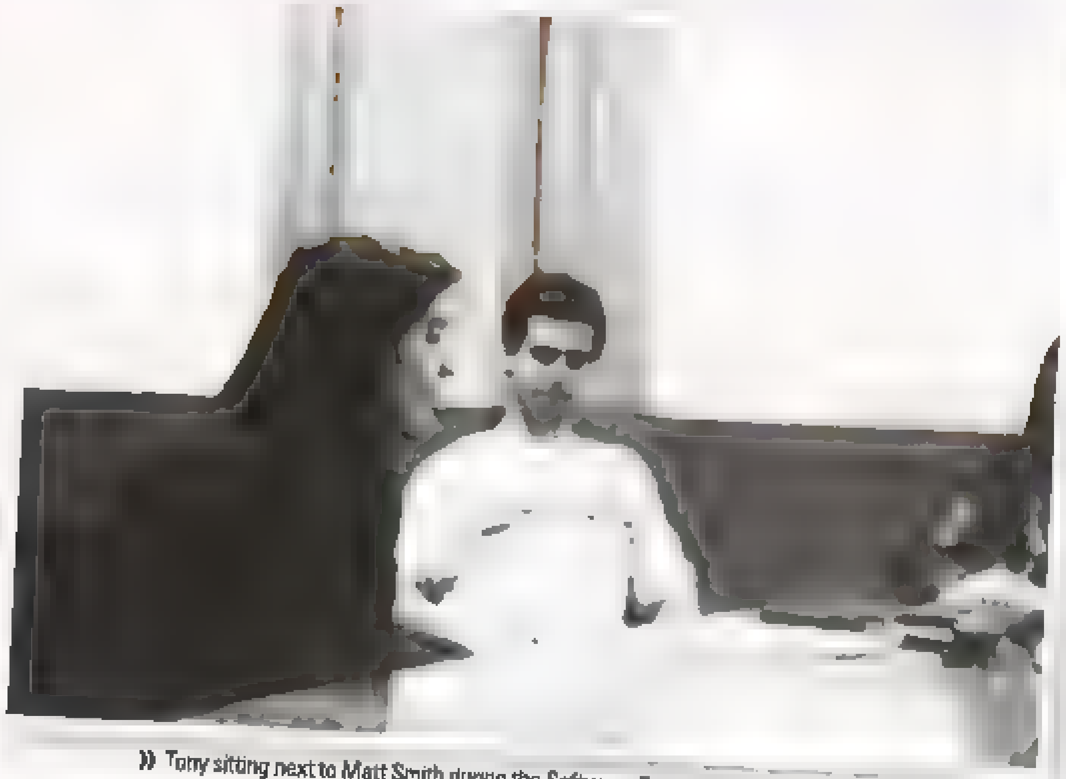
[Laughing a lot] This was me in my bedroom with no money to develop something, just an enthusiastic nutter with all these ideas in my head. Those 8-bit games were just stuff I wanted to do – and then they offered me money to release them. There was no market research or graphics and audio people. Just me working like a demon night after night for three years on these games.

Did you call on your mates in the industry when you were stuck for a subroutine or anything like that?

I did get fantastic help. I would talk to Jeff and he'd send me snippets of code. I'd ask how to do stuff and he'd explain how to do it but you have to remember, I was crap! I persevered and got games out the door but wasn't in the same league as coders like Jeff and Paul Woakes. Actually, Paul really helped me with Hyperforce on the Amiga, a bizarre game, which I had done for the ST but knew bugger all about the Amiga. He invited me up to his house to convert it and I stayed with him for about three days while we got it done.

One reviewer of Hyperforce noted it was very much in the style of a Llamasoft game. Was that a fair comment?

Yeah, Jeff certainly inspired me. All those guys did. They were so talented. I was just a lackey – who was I to be mentioned in the same breath as these guys? It was just a privilege to know them.



» *Tony sitting next to Matt Smith during the Software Superstars piece for Big K*

Frenesis (1987) was given a 43% rating by Zzap!64. As someone who reviewed games, how did it feel to be on the receiving end of a poorly scoring review?

Frenesis was a stupidly simple concept. I was thinking of claustrophobia and I had this idea of things coming into the centre and you trying to fight them off. I read a review that said there was absolutely no skill in the game and you might as well throw your joystick in the washing machine, you'd do as well. He was probably right.

You seem very stoical about it.

Starburst and Frenesis were both indulgences. I was amazed I got paid £2,000 to do the stuff in my head! With respect, I did the best I could in the timescale I had and with the resources I had. Hyperforce I thought was better. It got 8/10 in Commodore User!

That's wholly respectable. Were there any games you wrote that never got released?

Oh, there was Morphin' Machines and Footy, this

> One day this game Sonic arrived. I plugged it in and my God, it was amazing!
>
> Tony Takoushi

Personal Computer
GAMES
WHICH KONG IS KING?
We compare 11 contenders
JEFF MINTER

» [C16] Tony describes his work on Starburst as an "indulgence"

» [C16] Frenesis was released by Mastertronic and achieved a score of 43% in Zzap!64.

THE OFFICIAL
SEGA
SONIC 2
BY TONY TAKOUSHI

» Tony authored the official guide for the Blue Blur's return.

platform game I was doing with Mo Warden, and then there was Mario: Lost In Music.

You were working on a Mario game?
It was around 2005 and I was thinking of all the places they'd already put Mario in, all those different scenarios in Super Mario World, and I thought, "They could put him in space!" I extended that to fit in with this idea for a music game I had and with one coder and some students on placement, we put together a barebones demo with various levels. You interact with a musical wave a bit like Vib Ribbon and there are 2D and 3D stages. We got a prototype going and pitched it to Nintendo in Seattle. Miyamoto got to see it… and apparently he wasn't best pleased. He said he was sick and tired of people taking liberties with Mario!

You had better luck with Sega. How did you end up working for them?
Some of the 8-bit games I'd written had been published by Mastertronic and they'd just picked up the franchise to distribute Sega games. I ended up writing the first four issues of the Sega Club magazine and later I worked on the official magazine. I'd actually go and visit kids in their homes and play the latest games with them, head to head. I'd turn up with the latest games to a room packed with kids… and pray they didn't kick my butt!

So how did you go from defending your honour on Streets Of Rage to becoming European product manager for Sega?
That was because Virgin Mastertronic transformed into Sega… and it was exploding. Staff were being hired left right and centre and opportunities came up. My job was to help with the operational stuff, liaise with Sega Of Japan and America, help with setting up Sega Europe, help with the product lineup… it was a humongous job and there was no manual for it. We went from turning over £20 million to £500 million in 18 months.

That was a lot to do with the arrival of a certain blue hedgehog, we'd imagine.
In the early days, I'd get zipped ROMS sent over and had to burn one ROM at a time to get a game mounted into a cartridge. One day this game Sonic arrived. I plugged it in and my God, it was amazing! I was the first person in Europe to get to play it.

You went on to write the Official Sonic The Hedgehog 2 Guide in 1993, too.
That went down a treat. The trips to the Sega Technical Institute in America when Sonic 2 was in development were great. I met Roger Hector [the director of STI] and he took me round. I remember seeing all the levels, spread out across the walls of these huge offices. I asked someone if Yuji Naka was around and they said, 'No.' They paused and then added, 'Not really.' Apparently, the team found him very aggressive, very pushy and I got the impression they didn't like him.

Talking of being pushy and aggressive, didn't you have a run in with GamesMaster TV presenter Dominik Diamond?
[Laughs] Dominik called me from GamesMaster

Though he now lives in Australia, Tony does return to London occasionally to visit old friends

demanding we send him some Mega Drive game that day. I said we couldn't send it him straight away and he started shouting, 'It's for the TV show and you can't say no.' He was really rude so I said, 'Well actually I can, goodbye.' The next day he sent me a grovelling letter apologising for being an arsehole. I've still got it!

Did you tend to save a lot of memorabilia from that time?

I've got about 50 boxes of all this stuff I've collected over 30 years, everything from custom Master Systems, to Sonic promo jackets, original artwork, posters, T-shirts, keyrings... one day, I'll do a series of YouTube videos, unboxing one a week, telling the stories about what's inside and then selling the contents on eBay. A ton of one-offs!

You seem to have loved your years working over at Sega so why did you leave to go to Philips in 1994?

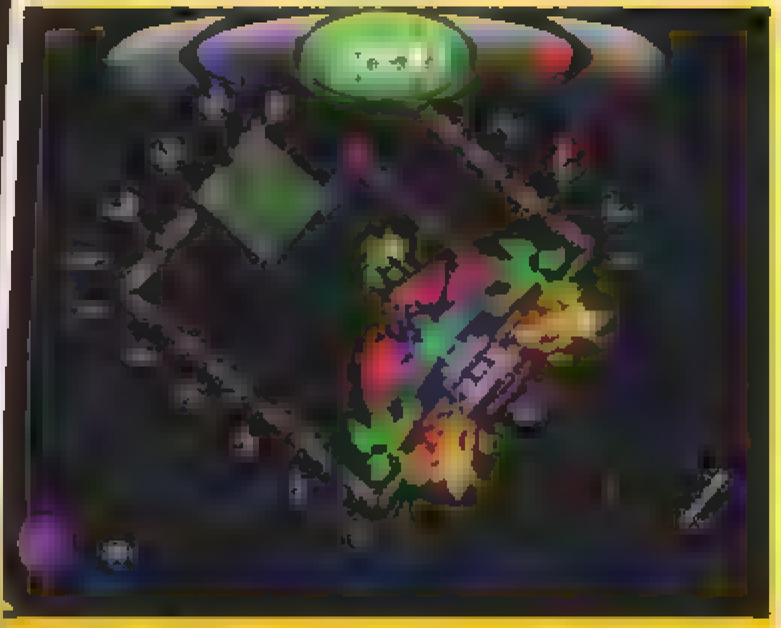
I had reached a peak at Sega and I was approached by Philips who were setting up a division to do games. They made me an extremely good offer. I left Sega with a heavy heart but this was a real opportunity and I was there for a couple of years.

Did you have anything to do with the The Legend Of Zelda games released for Philips' infamous CDi machine?

Philips actually promised me that I wouldn't have to work with the CDi. Those games are pretty dire, aren't they?

In the Noughties, you joined Codemasters, a company founded by gaming legends David and Richard Darling, who in a nice spot of circularity, also produced games for Mastertronic around the same time as you did.

Yeah, after leaving Philips in 1996, I spent five years doing my own games but in the end I realised I needed to go back to salaried employment. I got a call from Richard Darling who offered me the job of heading up Development Services. It was a mind-bogglingly good offer, a six figure sum which was huge back then. I was in charge of five departments – Q&A, Research, Customer Services and so on – which employed 120 staff at its peak.



[PC] Freefall 3050 started off life on the Nuon, was then converted to the Xbox and is now available on PC

We're delighted to hear you're back making games. Tell us about Freefall 3050AD.

It actually began on the Nuon. I knew Jeff [Minter] was working on the machine and they gave me and my team a sizeable amount to do a game for it. We worked like demons and got a prototype working which they liked so they funded my six man team for nine months but by then VM Labs [the company behind the Nuon] had gone belly up. It did get released but with no publicity. I remember showing it to Diehard Gamefan magazine in America and they gave it 80% bless 'em! That was around 1999.

Why revisit it now?

I actually converted it for the original Xbox and it was about a week away from being done but then Microsoft announced the Xbox 360 and they weren't going to back a game for the old system. I kept all the code and with Steam and Windows 10, there's finally a way to get it out there for people to play.

So what's it like to play?

It's very intense. You can spin 360 degrees on the spot as you fall through worlds and you can shoot in every direction. There's still nothing quite like it. One of my favourite levels is mission three, the Cruiser level. Do you remember R-Type where you had to work your way around the enemy ship destroying bits to eventually destroy it as a whole? Well it's like that and more in 3D. It's just so satisfying to destroy this massive cruiser while you spin, move and shoot in freefall.

Do you prefer making videogames or writing about them?

Writing about them is way easier! The work involved with making them is enormous but I do love creating. And I would like to say thank you to everyone for letting me be part of their lives back then. It's exciting to know retro is still around. I really didn't realise how lucky I was to share that passion with them.

You have said nice things about your heroes but you do know you were a bit of a hero back then

[Laughs] I'm not sure about that... though I was once at a computer show and they'd had a gold nameplate done for me. A girl came over and we were chatting away about games and C&VG. When I started chatting to someone else, she nicked the nameplate and did a fucking runner for the door! And she was fast.

YOU ASK THE QUESTIONS

Tony rummages through our mailbag

NICKTHORPE: The Master System was already discontinued in Japan and America by the time you got to Sega but still going in Europe. Did you ever struggle to get Sega Japan to commit development resources?

When I arrived, there was a pretty good line-up of software due to come out on the Master System. The kids were still hungry for new stuff. I didn't feel there was a shortage. I'd make regular trips over to Japan and discuss the catalogue for the next 12 months and in my early days at Sega, they still had several divisions producing games for the Master System. Of course the Mega Drive came to dominate, but even towards the end I went over to see Sonic 2 in development and the Master System team still had freedom to develop their own take on the game – and it turned out better for it.

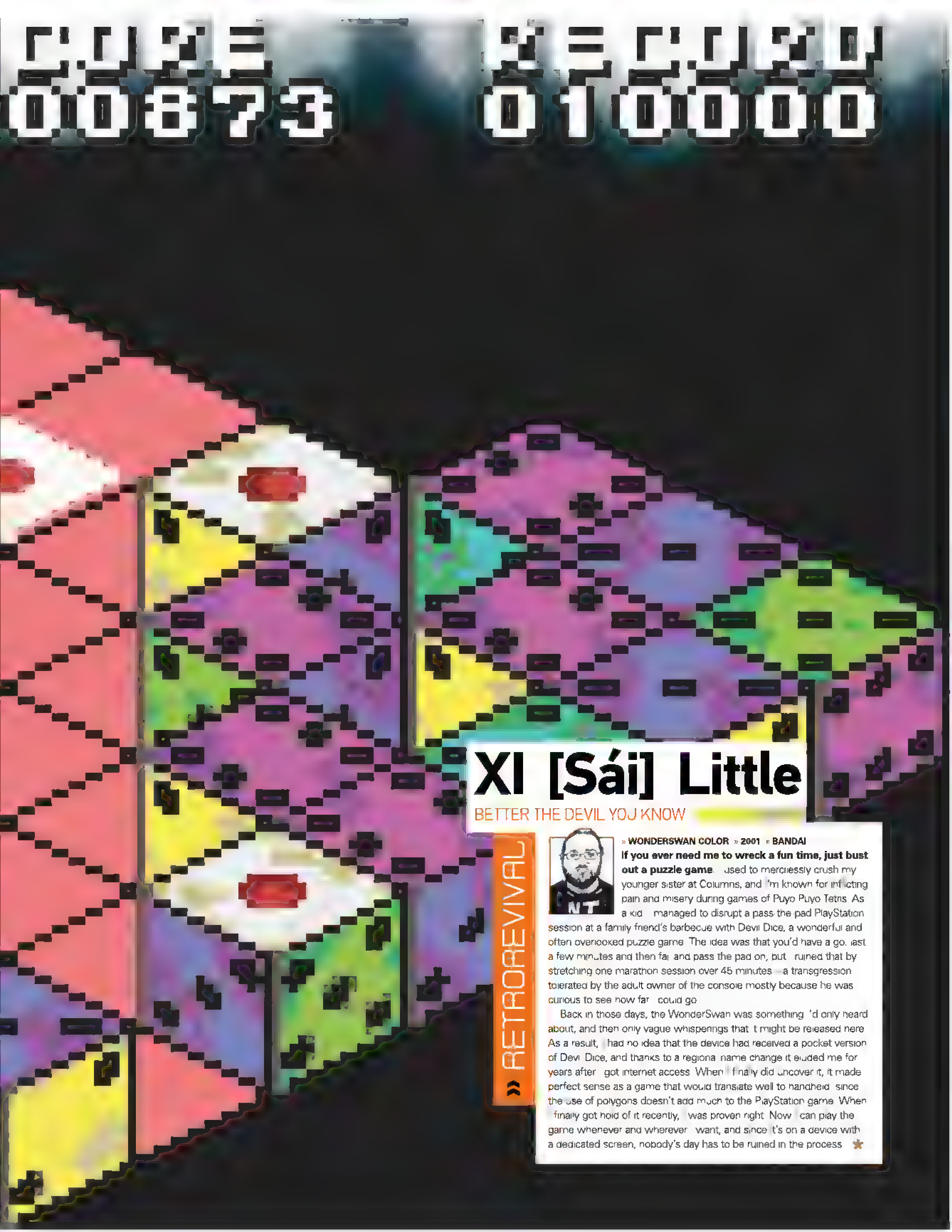
NORTHWAY: Did you score many scoops in your magazine days?

Tons! For example with the PC Engine, I did the first review and it created a storm of interest. About a year later I was in touch with a guy at NEC and he said, 'So you're Tony Takoushi who did that review? I came very close to putting a contract out on you. You made our lives hell with kids hassling us!' I said, 'Great, glad to hear it!'

KEBABINHO: The C16 doesn't get much love these days. Was there any specific reasons why you chose that platform to develop on?

It came out around when I was starting to get into 6502 machine code, so I wrote all my games on it first and any conversion started with that. I really loved that machine. I know I shouldn't have, but it had 127 colours to play with. It was a cool bit of kit.

LEVEL
07



» RETROREVIVAL

XI [Sái] Little

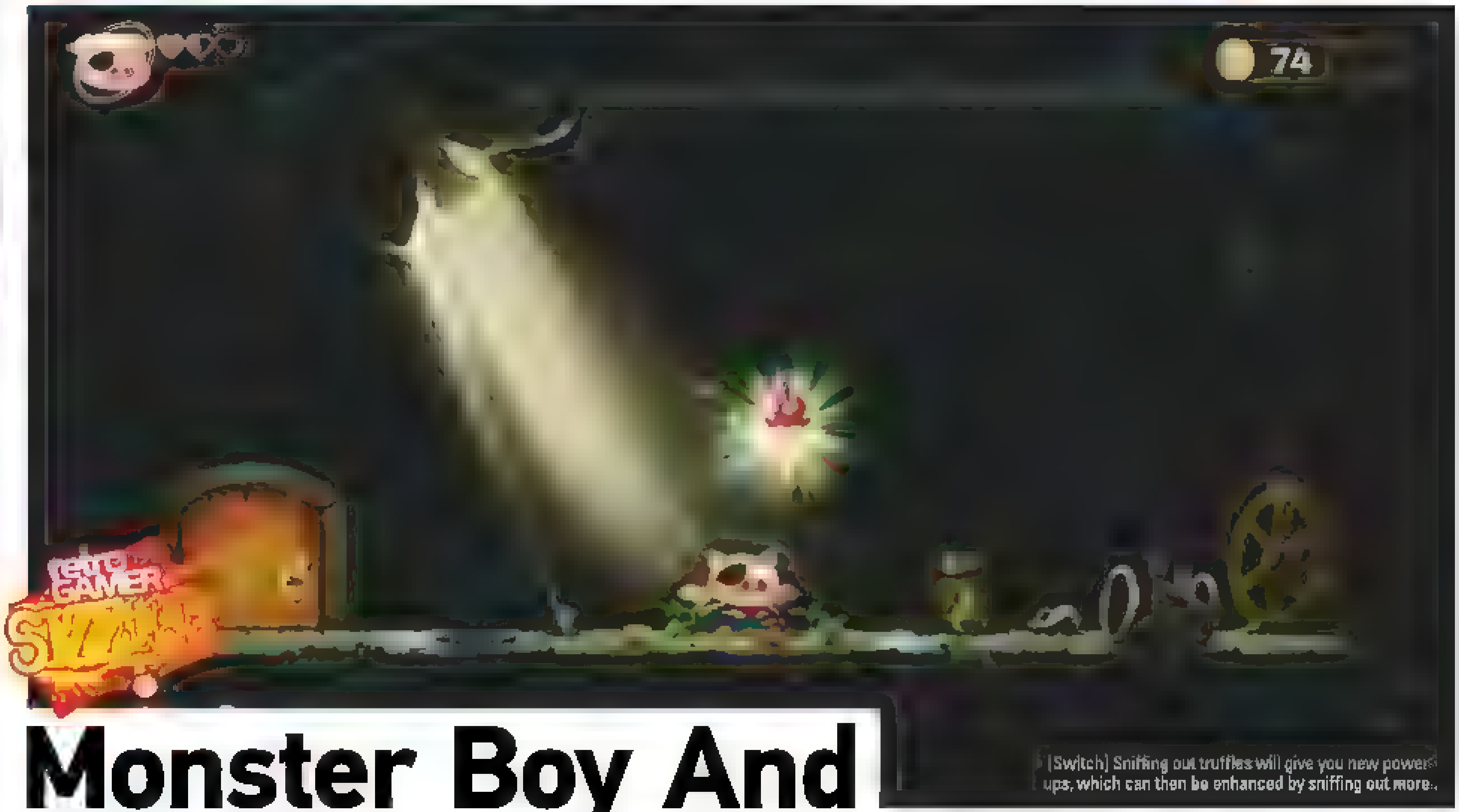
BETTER THE DEVIL YOU KNOW

» WONDERSWAN COLOR » 2001 » BANDAI

If you ever need me to wreck a fun time, just bust out a puzzle game. I used to mercilessly crush my younger sister at Columns, and I'm known for inflicting pain and misery during games of Puyo Puyo Tetris. As a kid, I managed to disrupt a pass-the-pad PlayStation session at a family friend's barbecue with Devil Dice, a wonderful and often overlooked puzzle game. The idea was that you'd have a go, last a few minutes and then fail and pass the pad on, but I ruined that by stretching one marathon session over 45 minutes – a transgression tolerated by the adult owner of the console mostly because he was curious to see how far I could go.

Back in those days, the WonderSwan was something I'd only heard about, and then only vague whisperings that it might be released here. As a result, I had no idea that the device had received a pocket version of Devil Dice, and thanks to a regional name change it eluded me for years after I got internet access. When I finally did uncover it, it made perfect sense as a game that would translate well to handheld, since the use of polygons doesn't add much to the PlayStation game. When I finally got hold of it recently, I was proven right. Now I can play the game whenever and wherever I want, and since it's on a device with a dedicated screen, nobody's day has to be ruined in the process. ★

>> This month we check out the latest instalment in the Wonder Boy series and discover if adding everything but the kitchen sink to Smash Bros Ultimate was a good idea



» [Switch] Sniffing out truffles will give you new power-ups, which can then be enhanced by sniffing out more.

Monster Boy And The Cursed Kingdom

WONDER BOY IS DEAD. LONG LIVE MONSTER BOY

INFORMATION

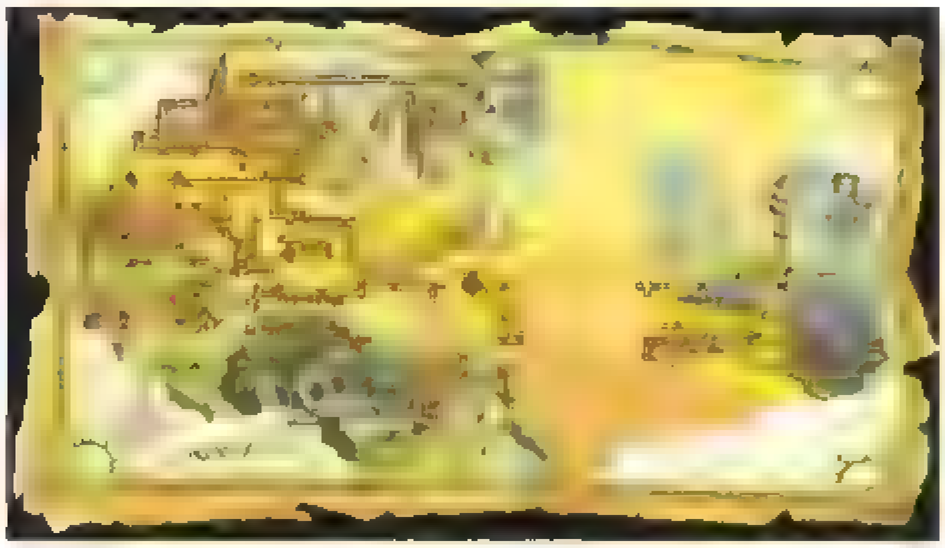
- » **FEATURED SYSTEM:** SWITCH
- » **ALSO ON:** XBOX ONE, PS4
- » **RELEASED:** OUT NOW
- » **PRICE:** £34.99
- » **DEVELOPER:** GAME ATELIER
- » **PUBLISHER:** SEGA
- » **PLAYERS:** 1

It's certainly been a rollercoaster ride for Game Atelier over the last four years. After failing to find funding for Flying Hamster II, it teamed up with FDG Entertainment and revealed that it would rebrand its game so it could become part of the Monster World franchise with input from The Dragon's Trap creator, Ryuichi Nishizawa.

Now we've got the history lesson out of the way allow us to go out on a limb so we can state that Monster Boy And The Cursed Kingdom is easily the best game in the long-running series and that it effortlessly topples the brilliant Dragon's Trap. Trust us, Game Atelier's game really has been worth the wait.

Anyone who has ever played The Dragon's Trap will be instantly familiar with Monster Boy's premise. A calamity befalls the land of Monster World and Jin is turned into an animal by his uncle, along with all the other residents of his village. Initially Jin is transformed into an eye-patch-wearing pig and must literally sniff out clues in order to progress. As you start exploring the beautiful-looking world you'll notice various nooks and crannies and bizarre objects that hint at new possible areas to explore, but you'll be unable to take advantage of them until you obtain new forms. You'll also gain access to a variety of different weapons, from bombs to lightning bolts, which will eventually open up new routes as you continue to explore.

Once you gain access to Jin's later animal forms you really begin to appreciate just how good Monster Boy is and how the ability to transform between forms on the fly allows Game Atelier to create some truly clever puzzle design. You'll often need to switch between several forms incredibly quickly in order to solve certain tasks and while same stages require precise old school timing, they never feel unfair in their implementation. There's always something new to do in Monster Boy, whether its using your snake's poison ability to light up a selection of underground crystals, so you can unlock a nearby treasure chest, or using your frog's tongue to latch onto nearby hooks so that you won't be swept away in a



» [Switch] It's going to take a very long time to discover all the secrets in Monster Boy's world

BRIEF HISTORY

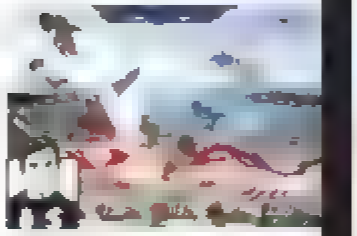
» The Wonder Boy series began in 1986 and made its debut in arcades. Also known as Monster World in Japan, it began expanding its mechanics, moving away from standard platforming to deliver more adventure based gameplay with light RPG elements. The most popular game in the series is The Dragon's Trap, which made its debut on Sega's Master System.

★ PICKS OF THE MONTH

DARRAN

Monster Boy And The Cursed Kingdom

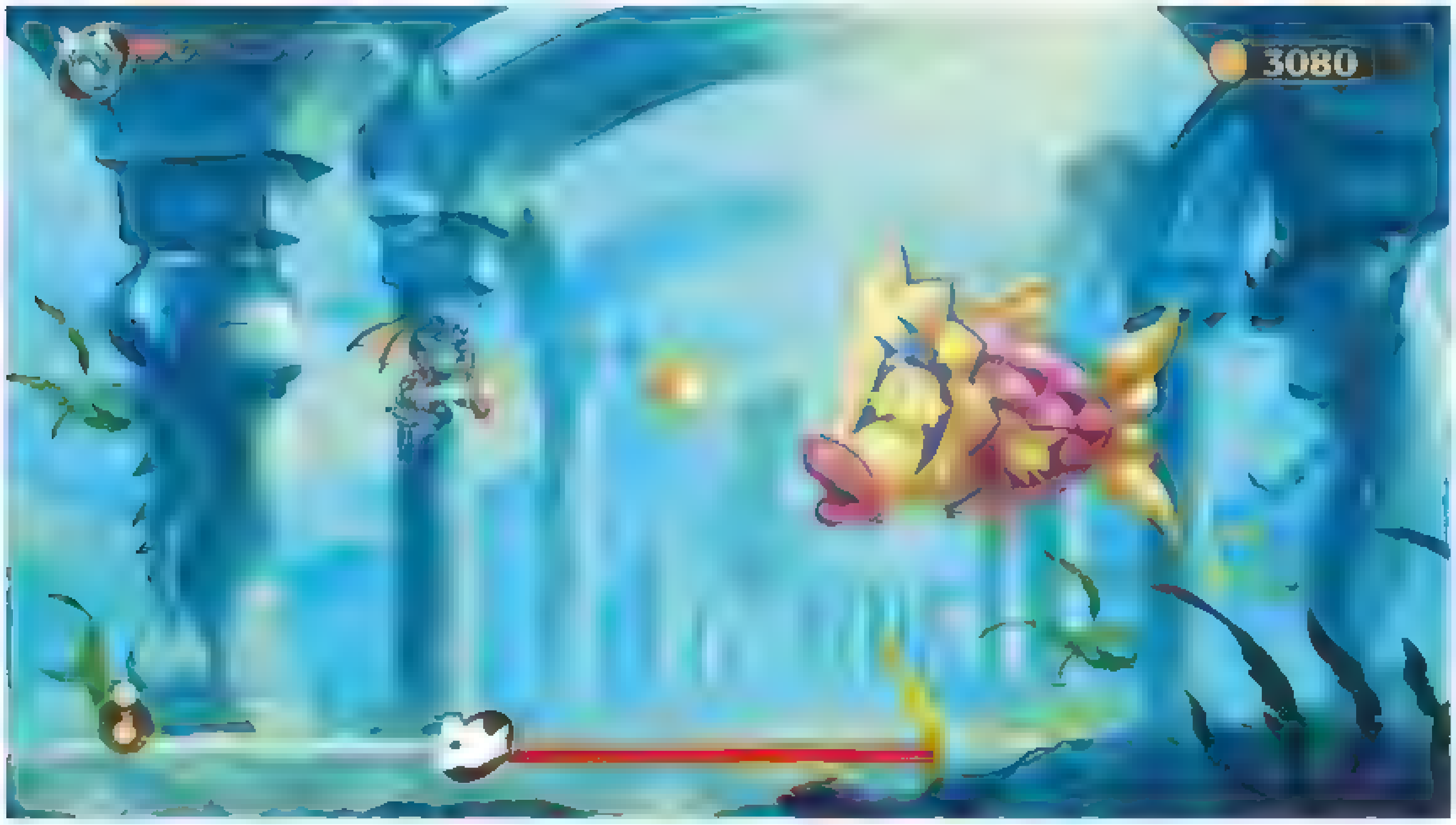
Don't be put off by the price, this is truly stunning and is easily the best game in the series.



DREW

Super Smash Bros Ultimate

The amount of content packed into this is absurd. A must for any Nintendo fan, young or old



» [Switch] The bosses of Monster Boy are beautiful to look at, but they can be quite easy to beat

nearby current. The inventiveness on display is mind-boggling, and it's no more apparent than when you take on Monster Boy's glorious-looking bosses.

Each major in Monster Boy is a sight to behold thanks to Atelier's decision to use hand-crafted animation in order to bring the Cursed Kingdom to life. You'll typically need to use your newest form in order to dispose of them and you'll often have to battle them in inventive ways, whether it's disappearing into the innards of one, or avoiding the flight path of another. In fact, the only real issue we have with these riotously entertaining battles is that they're perhaps a little too easy, with only the later bosses offering any real challenge.

Fortunately, boss encounters are such a small aspect of Monster Boy's structure that the overall ease with which many of them can be defeated isn't too much of an issue. Monster Boy is more about exploring the world and solving its many puzzles and secrets and the immense level design means that you'll really appreciate exploring the lush environments that Atelier has created. While we've already mentioned that many early areas are initially blocked off by animal transformations or specific weapons, you'll also discover that there are a whole host of useful pieces of equipment that either open up brand new sections of the game or allow you to more easily navigate certain tricky areas. You can find boots that allow you to double jump or walk across lava and clouds, mail that will boost your ability to see in dark areas or protect you from poison and swords that will enable you to turn enemies into platforms that can then be walked on. Additionally, much of the equipment in the game can be further enhanced at shops that Jin can visit in order to become even more powerful. Such is the allure of searching out gems you'll often find yourself continually returning to certain areas until you're convinced that you've sniffed out every last hidden secret there.

In addition to its awesome sense of exploration the other delight of Monster Boy is just how varied it is as you play. While the vast majority of the game design focuses on classic adventuring in the vein of The Dragon's Trap and Wonder Boy In Monster Land, you'll also have the occasional shoot 'em-up section and stealth areas to deal with. These sections keep you on your toes and ensure that you're never left bored. There's a lot of game in Monster Boy and while it ramps up the difficulty somewhat in later areas of the game the challenge also feels fair and it always reminds you of the earlier games that it's so obviously inspired by.

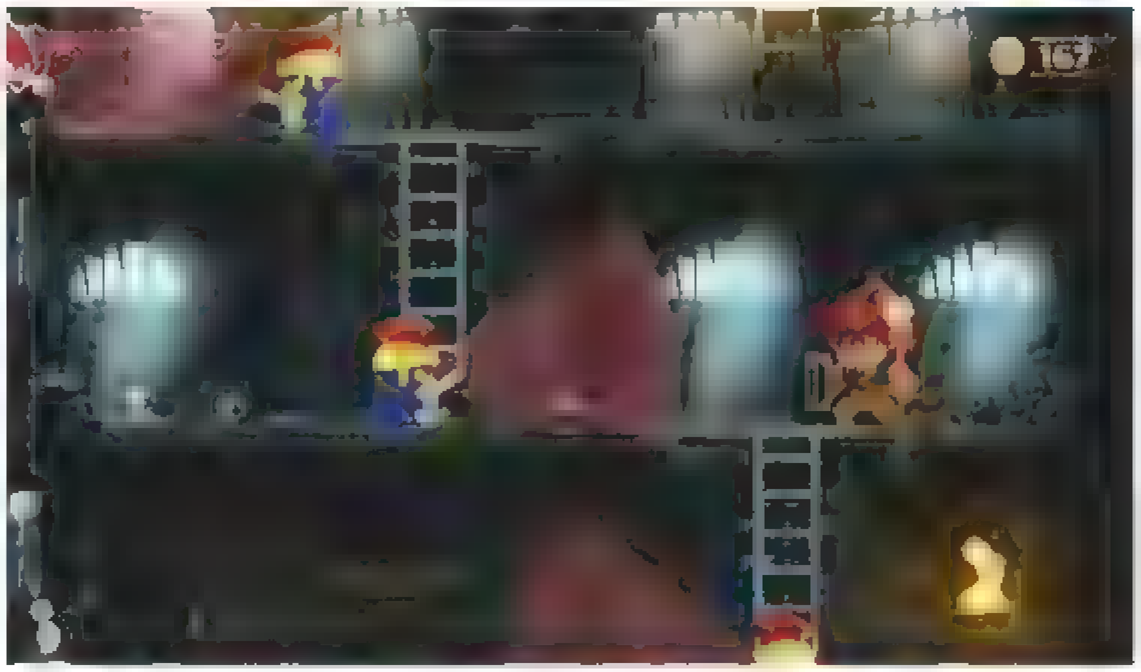
Indeed the soundtrack itself is a delight for anyone that's ever loved the earlier games in the series and you'll instantly find yourself humming along to the jaunty tunes and smiling at identifiable sound effects. Game Atelier is clearly proud of being part of such a well-revered series and you'll see it everywhere, from the heroes depicted in the local church's stain-glassed windows to the familiar-looking enemies and animal-owned shops.

If the recent remake of The Dragon's Trap was a welcome reminder of how great old games are, then Monster World highlights that new games are also able to surpass them. ★

In a nutshell

A triumphant reinvention of a classic franchise that not only plays to the strengths of its roots, but also takes things in exciting directions. An incredible achievement.

» Score **95%**



» [Switch] The difficulty does ramp up later in the game. It always remains challenging, but never unfair

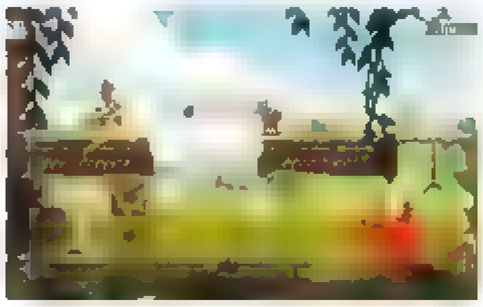
★ANIMALS IN ACTION

PIG

» This little fella can sniff out secrets, use his bottom to activate switches and has access to a variety of useful weapons, such as bombs, boomerangs and fireballs. He has quite weak attacks, though

SNAKE

» The second animal form you gain lets you stick to walls, swallow keys, sneak through gaps, smash certain bricks and spit a useful poisonous slime that is used to solve several puzzles



FROG

» In addition to swallowing items like the snake, this form also allows you to eat certain enemies with your extendable tongue, as well as swing on rings and swim unhampered underwater without fear of drowning.

LION

» The lion's most useful ability is a dash attack that will allow him to smash through certain walls and even do damage to enemies. He can also use a powerful ground attack and dash directly upwards as well

DRAGON

» The final animal form you unlock allows you to fly for a limited time. It also gains a useful fire breath attack and can also spit out fireballs in order to activate out-of-the-way switches

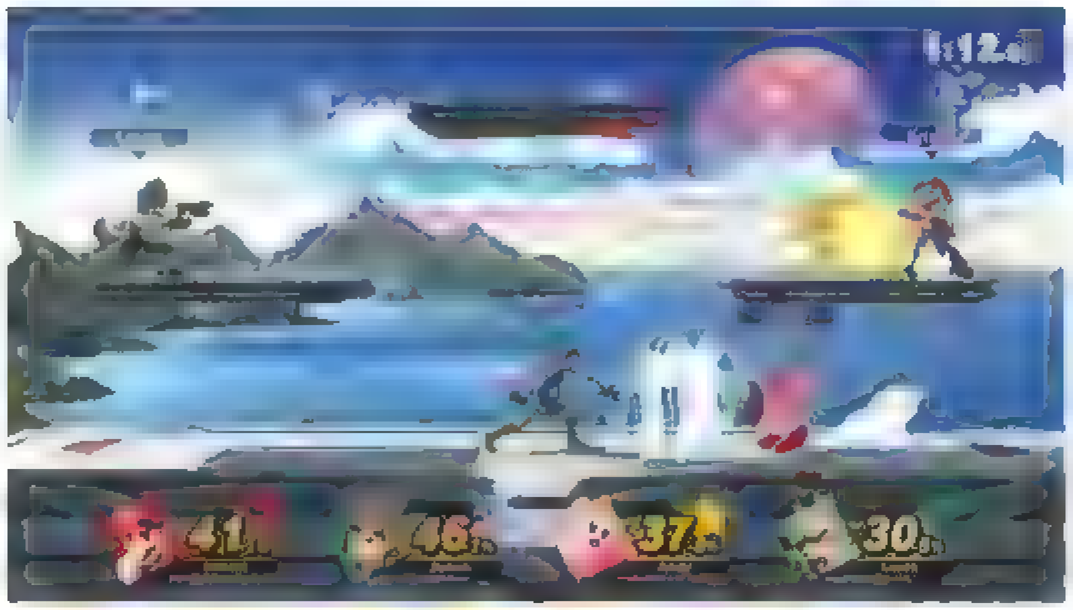
RETRO ROUNDUP

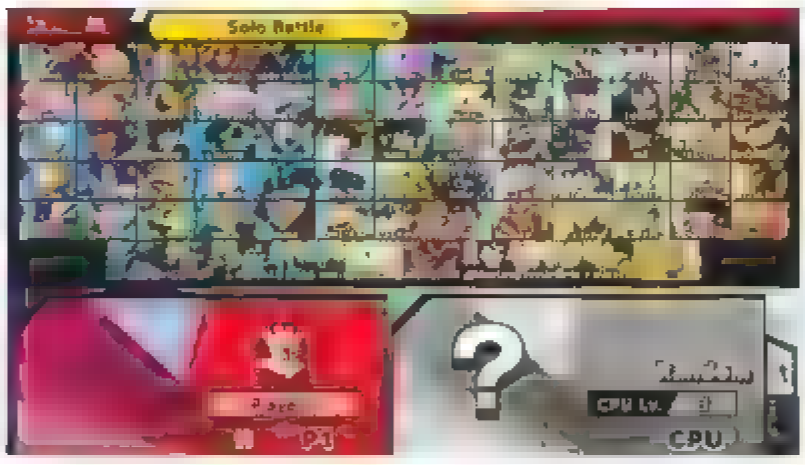
WE LOOK AT THE LATEST RETRO-RELATED RELEASES

★ PICK OF THE MONTH

Super Smash Bros Ultimate

» **System:** Switch » **Buy it from:** Online retail » **Buy it for:** £49.99





■ [Switch] The core battling will feel familiar because it's been largely unchanged

■ [Switch] The 74 strong roster is staggeringly diverse, but the Fire Emblem characters have far too similar movesets

As a celebration of a company's IP, Super Smash Bros is a triumph. Aside from the large roster of playable heroes, there are hundreds of hours of music, thousands of collectable 'Spirits', and a healthy amount of in-game assist characters and items from Nintendo's wide history – and even beyond that, with the Smash crossing over with big-hitting non-Nintendo franchises such as Final Fantasy and Sonic The Hedgehog.

The game itself is very much Smash Bros as you know it, with a few tweaks here and there which for the most part work to the game's advantage. That said, we noticed input lag when playing the game in docked mode both with wired and wireless controllers. In a party-style setting this is largely forgiven, but if you're a competitive-focused online Smash player you will definitely feel it.

A large criticism of the Smash Bros series as a whole is that its single-player components are largely lacklustre, however Ultimate features a full campaign mode called World Of Light. This introduces a large – and trust us when we say 'large', because it will take you around 20-plus hours to finish it – adventure where you explore a board game-like overworld and unlock Spirits. Spirits have their own stats and can be equipped and levelled up in an RPG-like system that gives the mode a decent amount of depth. It's good to see the series embrace this direction, although World Of Light does get stale because it largely boils down to a seemingly never-ending gauntlet of samey fights.

The online multiplayer is disappointing. Along with the usual online connection drops the series has experienced before, matchmaking can often place players in modes with rulesets they didn't ask for, making it a frustrating experience.

All in all, Ultimate excels as a casual party game but falters in the face of more hardcore play. Its broad approach works well in some areas, and what it does well it does spectacularly, but it does fall flat in places. Still, it's the best Nintendo release of 2018, and is an excellent celebration of the industry titan.

» Score **83%**

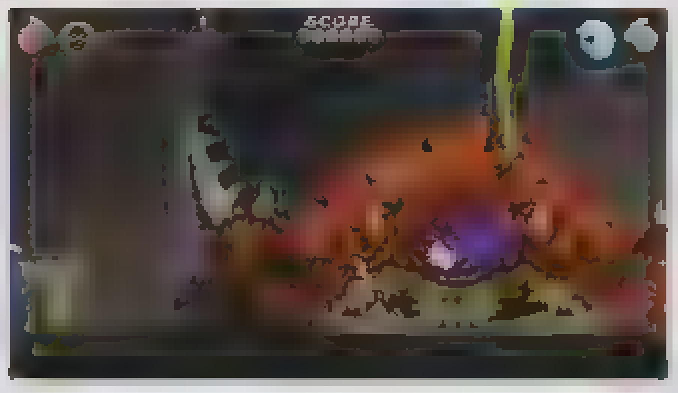
Sega Ages: Phantasy Star

» **System:** Switch » **Buy it from:** eShop
» **Buy it for:** £5.99

If you've never played the Master System classic before, this is the version to try. You're able to play the original or the rebalanced 'Ages Mode' that features fewer random battles and awards more XP and money per battle, allowing you to focus more on exploration than combat. Automapping is available in both modes, aiding in dungeon exploration, and the walking speed can be toggled between original and speedy settings.

As usual for the Sega Ages range, plenty of screen options are included, and you can choose between the FM and PSG soundtracks for both the Japanese and English versions. The only minor snag is that errors in the translation have been left intact, but these are mostly benign.

» Score **88%**



Battle Princess Madelyn

» **System:** Switch (tested), PS4, Xbox One, PC
» **Buy it from:** Online » **Buy it for:** £13.49

The latest offering from Causal Games is perfect proof that it's not just enough to have pretty visuals and excellent sound – you need a great game to back it up. Battle Princess Madelyn's origins are clear to see from the moment its opening scene plays out. But this isn't just a love letter to Capcom's Ghosts 'N' Goblins series, other classic franchises are referenced too, most notably Konami's Castlevania. While it has two distinct game modes: Arcade and Story, the latter is a disappointment due to poor signposting and weak level design. Arcade mode is better but still has many frustrating elements like respawning enemies and unfair deaths, which is at odds with the excellent bosses and tight controls.

» Score **68%**

Bandersnatch

» **Available from:** Netflix

Black Mirror's Bandersnatch episode dazzles with its tech and nostalgia but doesn't manage quite the same feat with its story. Set in 1984 it stars Fionn Whitehead as Stefan Butler, a young programmer who takes his choose-your-own-adventure game to Tuckersoft, home of the acclaimed videogame designer, Colin Ritman (Will Poulter). What follows is largely down to your own choices, which are inputted by simply making a choice on your remote. It's extremely effective and is virtually seamless to use. Equally satisfying are the references that include nods to classic games and coders, brand-new Oliver Frey artwork and even a surprise cameo from an acclaimed Eighties coder. It's a pity then that the story doesn't play to the same strengths and it's highly unlikely that you'll want to uncover everything that Bandersnatch potentially offers you.

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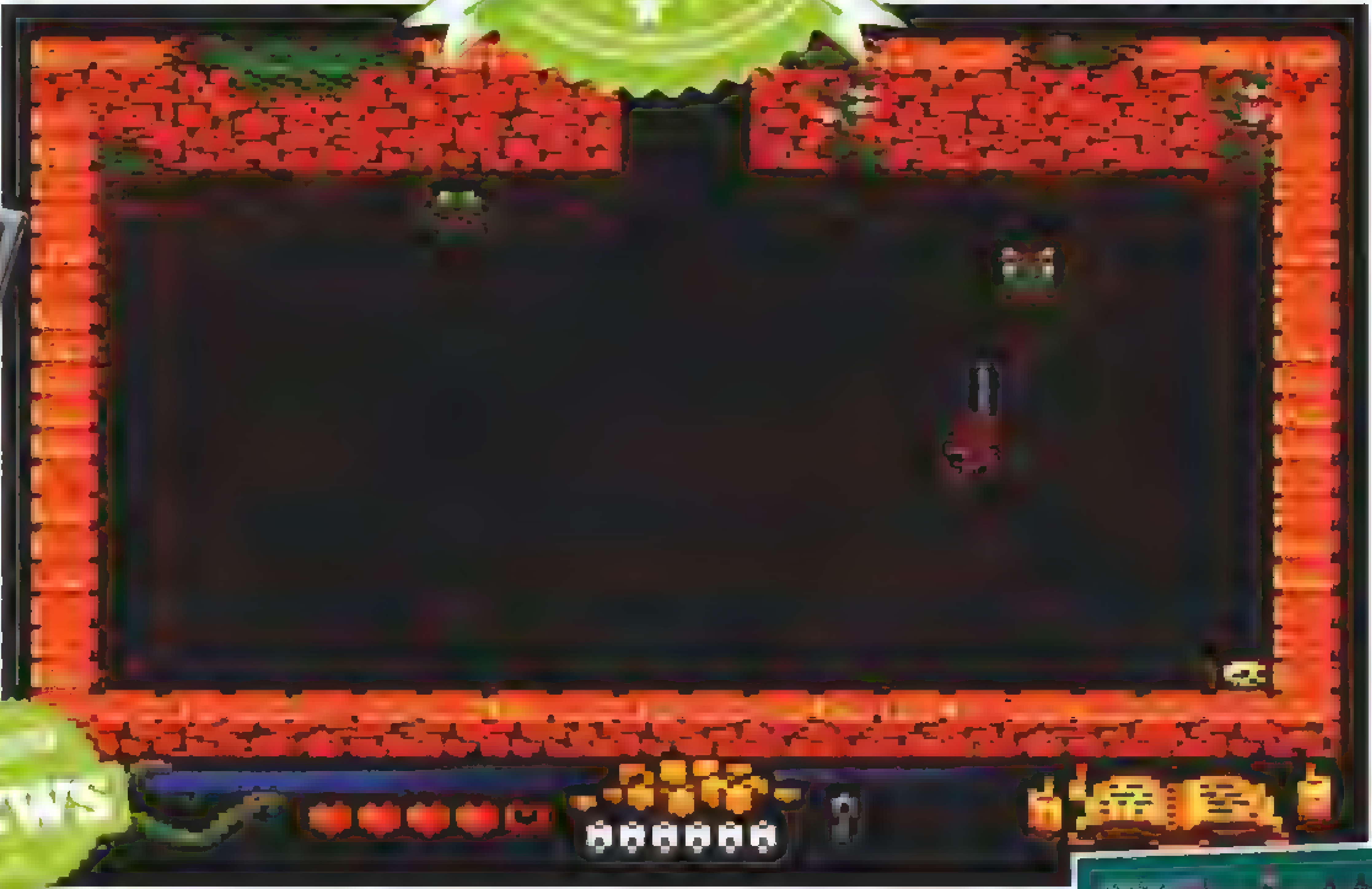


» [Amstrad CPC] Hack and slash your way through the dungeons of Legend Of Steel

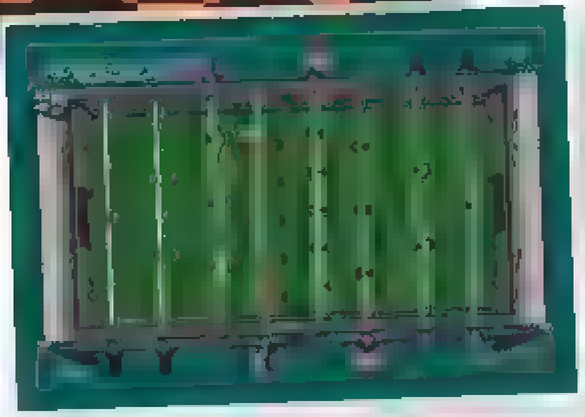
INFLUX OF AMSTRAD

The CPCRetroDev contest for 2018 produced a whopping 41 new titles for Amstrad CPC owners to play, and a few in particular grabbed our attention. Dungeon crawling games proved popular with the developers this time, and Legend Of Steel in particular stands out, with some excellent graphics and the chance to swing a weapon at lots of foul but still surprisingly cute creatures. Elfo Saves Christmas also has flip-screen exploration at its heart, with an elf entering rooms and having to defeat all the enemies within before the exits are unlocked and, if you prefer scrolling action, then there are creature-laden Gauntlet style dungeons to roam in Deeper Warrens.

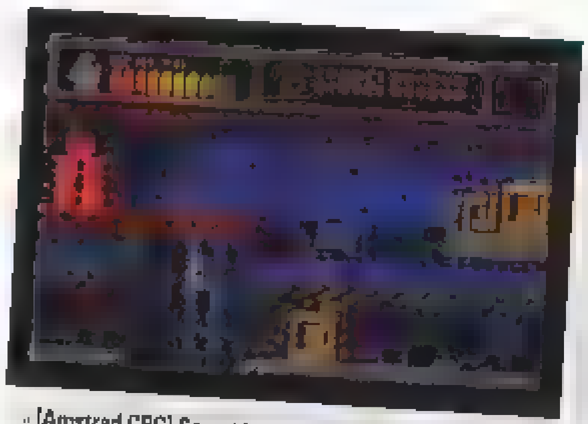
Both Cannon Duels and Foosball F3 are designed for two people huddled around a CPC but still offer a single-player experience. The former places a gun on each side of the screen and lets the players try to either blast each other or the wall of bricks between them, while the latter is a feature-laden table football simulation. Footy fans might want to look at penalty shoot out simulator Penalty Kicks, too; it isn't quite as impressive visually but the simple gameplay is still fun.

There are some very impressive platform-based action games to choose from. Jarlac is something of a hack and slash love story where the titular character sets out with sword in hand to remove the dark sorcerer's curse from his beloved Ariett, slicing up anything that gets in his way in the process. A long abandoned, but still surprisingly active, Second World War base in the Arctic is the setting for Operation Alexandra as the player takes the role of a research scientist sent to find the source of a strange signal who discovers far more than he'd bargained for.

There's no shooting in 77 Attempts but it does take platform-based inspiration from Super Meat Boy and, as the name suggests, gives the player 77 lives to work with because they'll need them! And of course there has to be some silliness, so 18th Century Invaders is a Space Invaders clone but with the aliens replaced by an entire army that lone soldier William Barret will need help to fend off. All of the entries can be downloaded in a handy package at Kikstart.me.uk/cpc-retro-dev-2018 and there's plenty more to see, so Amstrad owners might want to put a weekend aside to wade through everything.



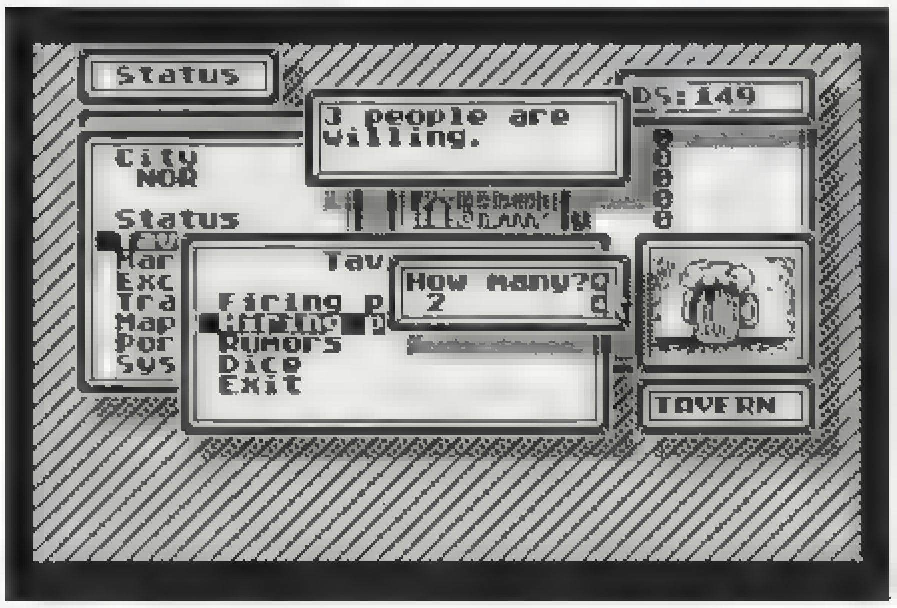
» [Amstrad CPC] Foosball F3 simulates table football for one or two players.



» [Amstrad CPC] Searching a recently unearthed World War 2 base in Operation Alexandra.

NEW GAMES NEEDED

If you have a homebrew project you would like to see featured then please contact us at: **retrogamer@futurenet.com**



» [Atari ST] Why not visit the local tavern to hire some people?

OLDE WORLD TRADING

After a skirmish with pirates, a merchant's daughter is kidnapped. The only thing that will see her returned safely is the payment of an extortionate 60,000 ducat ransom and the raising that kind of cash is going to take some serious trading.

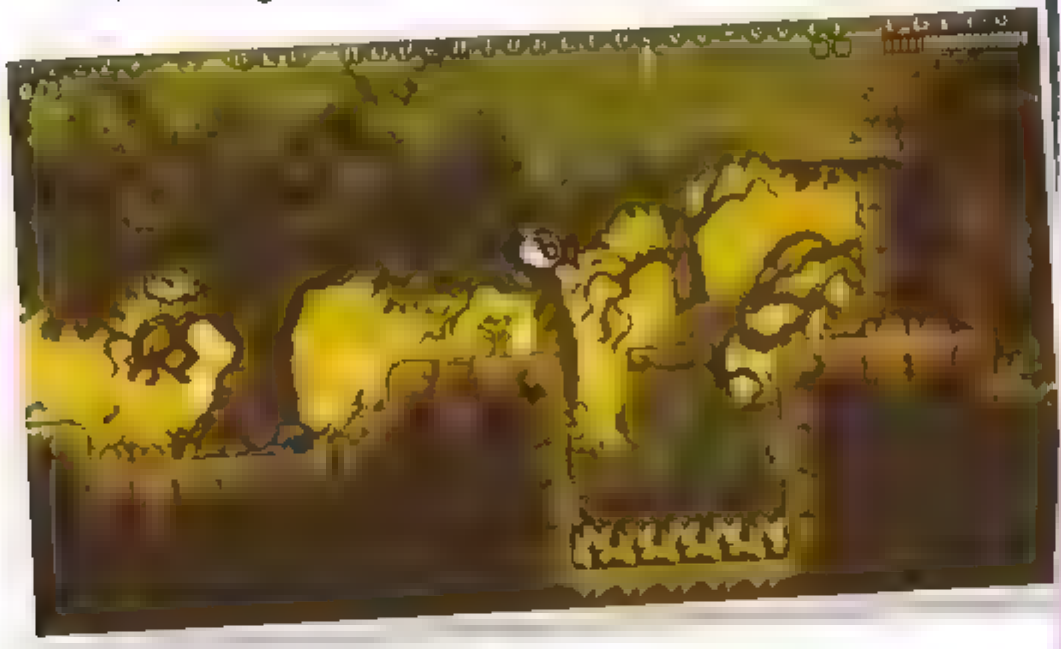
Business is done via a mouse driven, windowed interface which allows the Merchant to manage staffing, buy, sell or trade items in their inventory and travel to other ports, all the time keeping an eye on available funds. A handy download can be bartered for behind the link at Kikstart.me.uk/merchant-st

EGGCELLENT GRAPHICS

We've looked at a few DizzyAGE created games previously and they've usually offered the same visual stylings as one of the classic Dizzy titles. Dizzy's New Adventure is different however, the sprites look similar to the original 16-bit ones but the backgrounds are new and look gorgeous.

It's obvious that a lot of work has gone into the visuals and that development is still ongoing right now, but a short preview version can be found at Kikstart.me.uk/dizzys-new-prv-win with the final game hopefully being ready for release at some point during 2019.

» [PC] There's a handy lift in this forest, time to jump on board



HOMEBREW HEROES

Thomson's TO8 and TO9+ machines rarely see new releases, so when Mission: Liftoff came along we approached one of the designers Hervé Piton to find out more about developing for those platforms

To start off, where did the inspiration to create a new Thomson game come from?
When it comes to the quality of their games, Thomson computers have a poor reputation, and this is generally justified except for a few truly interesting titles. We had a suspicion the later models of the Thomson range — TO8 and TO9+, released in 1986 — had never had their potential fully exploited and that they could possibly do as well as their 8-bit competitors or even better. The small Thomson community was also very keen for new games.

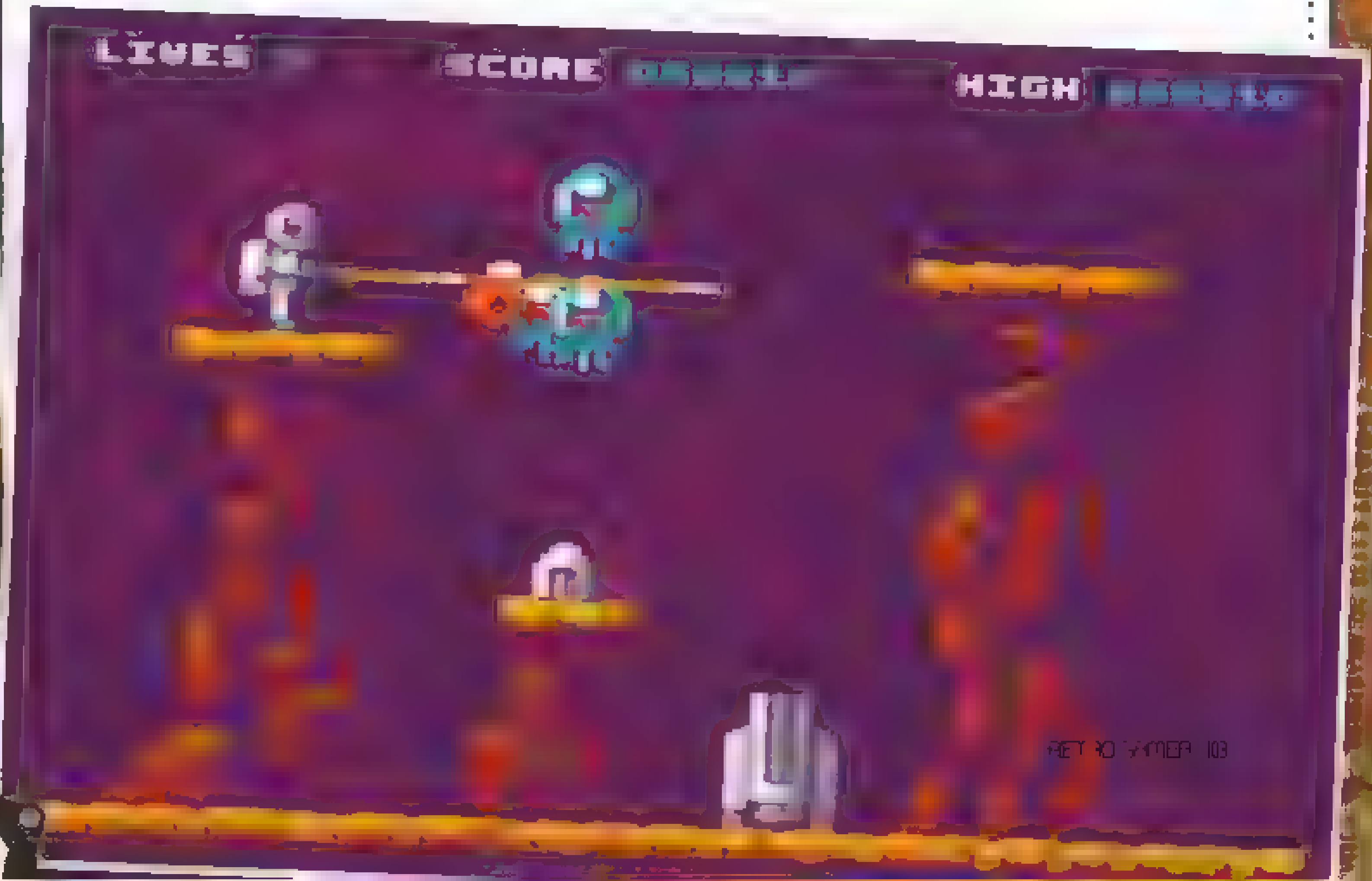
How many people worked on Mission: Liftoff and roughly how long did it take to make?
It was mostly two of us. Francois took care of all the programming and I did all the art, with game design very much shared between us. We only got external help for the music and the ASCII logo for the documentation. All in all it took a bit more than four years at a very leisurely pace. We didn't rush because we wanted to do things properly.

» [Thomson TO8] Thank goodness there are lots of convenient fuel pods around here

This pushes the hardware, what challenges did the Thomson TO8 present?
Nothing in the TO8/TO9+ hardware was really designed for running fast-paced games and no other games come close to what we were able to squeeze from the TO8. To get the game to run at 25 FPS — or 39,936 cycles — all the routines had to be massively optimised. The code in 6809 assembly language had to be sliced in time blocks of exactly 128 cycles each, with sound generated at the beginning of each of those. For those sound effects to be then played, they first had to be mixed and stored in a buffer. Even refreshing the screen at the speed we wanted had to be done in a special way, with sprites displayed with code and not with a bitmap which would have been too slow. We also had issues with the joystick inputs interfering with the sound routines as they were using the same hardware registers at some points!

Did all of the utilities exist already or are some bespoke for Mission: Liftoff?
Almost all the PC utilities used to develop Mission: Liftoff were custom-made: tools for compressing the full-screen introduction animation, for converting sprites to 6809 assembly language, for compressing sound at 44,100 Hz, for remapping the art assets to the Thomson palette, etc. Even the disk image creation tool had to be heavily rewritten. Basically, only the emulator and the 6809 compiler were in place when we started.

And finally, are there any future plans for new Thomson games that you can tell our readers about?
No plans for now. We know there's an untapped demand for new games on Thomson but we're not ready yet to commit to another three or four-year project. We do hope we managed to pique people's interest enough for them to consider starting a project on those little-loved machines, though.

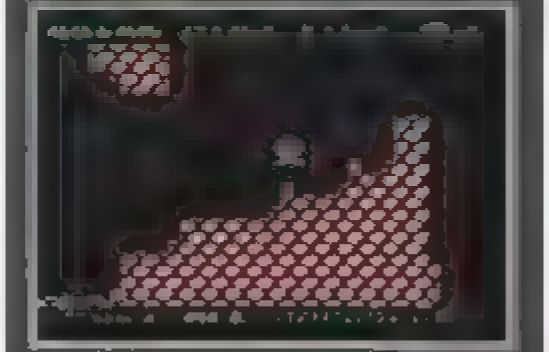


DO YOU REMEMBER?

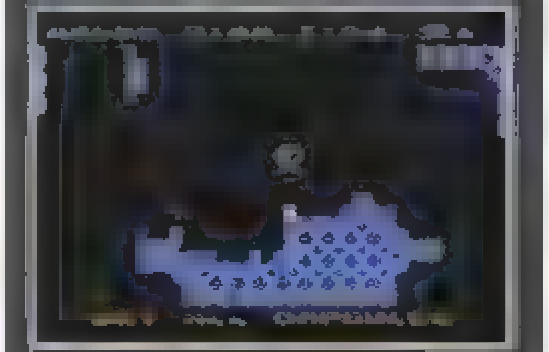
Released in 2005 for the then-flourishing annual MiniGame competition, Aleksi Eeben's Venus Express was an action game for the C64 which borrowed elements from the Atari classic Gravitar and crammed the results into 1K.

The Atari 8-bit version released a year later has a few tweaks including a soundtrack, but is an otherwise faithful port. The player must carefully guide their spacecraft into a series of caverns, gather up a quota of glowing pods while fighting against inertia and gravity, then thrust their way upwards to safety before the timer expires.

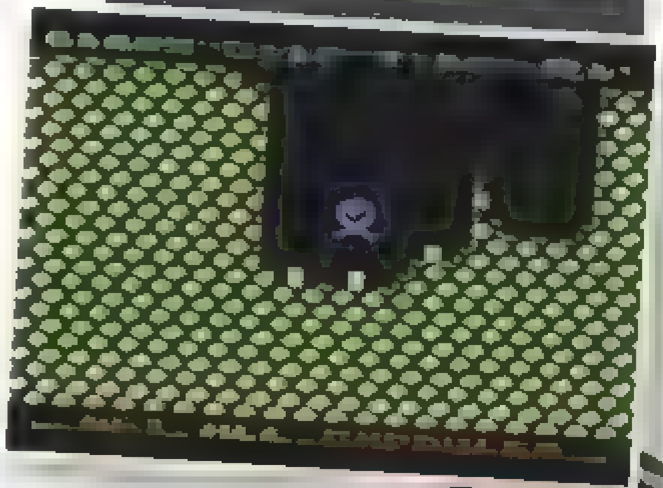
The controls are very twitchy so require a delicate touch and some patience – collecting pods safely takes some practice – but Venus Express is lots of fun to play and offers many planets to explore the innards of. Probe the link behind Kikstart.me.uk/venus-express-a8

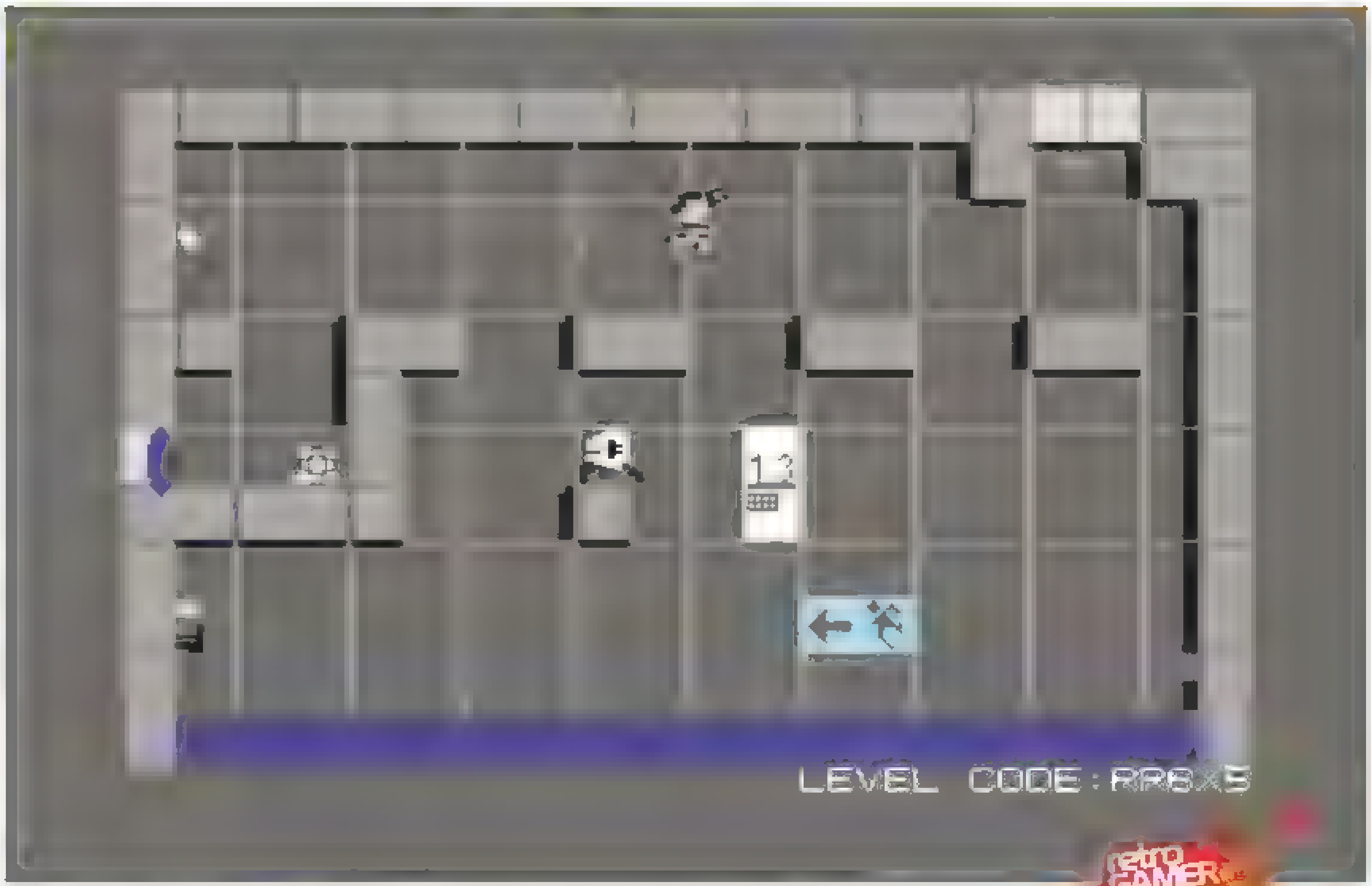


» [Atari 8-bit] Slow and steady doesn't always win the race if there's a timer.



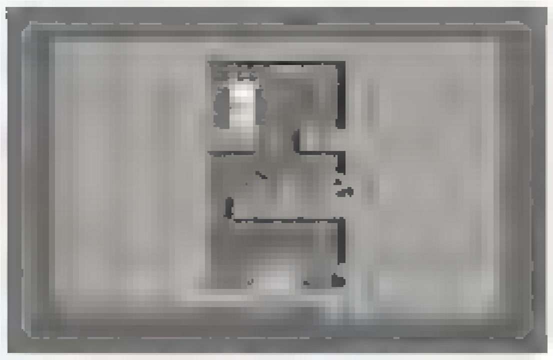
» [Atari 8-bit] Hovering precariously above the pod perched on a cliff edge.





PORTAL V1

PLATFORM: COMMODORE 64 » **DEVELOPER:** JAMIE FULLER » **DOWNLOAD:** KIKSTART.ME.UK/PORTAL-V1-C64 » **PRICE:** FREE



» [C64] Getting some help from a faithful, and not at all sentient, Companion Cube

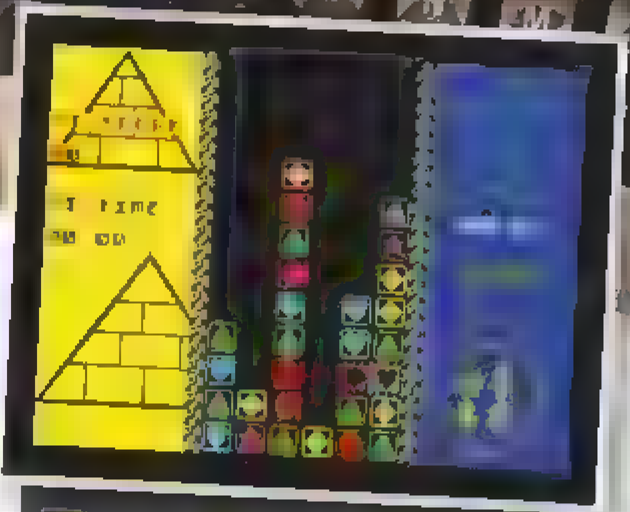
» [C64] "Why do all these chambers look strange? You try doing this with just 8-bits!"

The rather grandly-titled Computer-Aided Enrichment Centre was set up by Aperture Science around the time its founder lost the plot and changed the company's focus away from developing high-tech shower curtains for the military. One of the projects that shift in goals launched created a device capable of generating quantum tunnels which can be walked through, potentially transporting the user over vast distances. This was a fantastic invention but, before the trials were completed, Aperture's recently installed AI GLaDOS decided that most of the humans involved in that process were superfluous and that flooding the facility with a deadly neurotoxin was a good way to deal with the overstaffing.

A few people were kept alive, however, including Chell, who has recently been resuscitated before a portal gun was thrust into her hands and she found herself thrown in at the deep end at the first of 20 testing chambers, some of which have been embellished with deadly traps and the odd, trigger-happy sentry drone. The portal gun is incredibly useful since it can fire orange and blue linked portals onto certain surfaces which can then be walked through to move around the chambers safely or get to otherwise unreachable places.

Portal V1 isn't the first outing for the Handheld Portal Device on the C64 – Simon Quernhorst's Shotgate from 2008 is the earliest that we're aware of – but this is how we'd expect Valve to handle a conversion. The controls take a little acclimatisation since Chell is keyboard-driven and the portal gun's aiming must be handled either by a joystick or, if the hardware is available, a Commodore 1351 compatible mouse. We tried both and, although the joystick is perfectly serviceable, mouse control feels much more fluid. If there's a complaint to be made about Portal V1 it's the same one levelled at Valve's original; there's just not enough of it so, since Chell has infinite lives and each stage has an access code, tests subjects will find themselves at the end and not receiving cake far too quickly.

» **Score 91%**



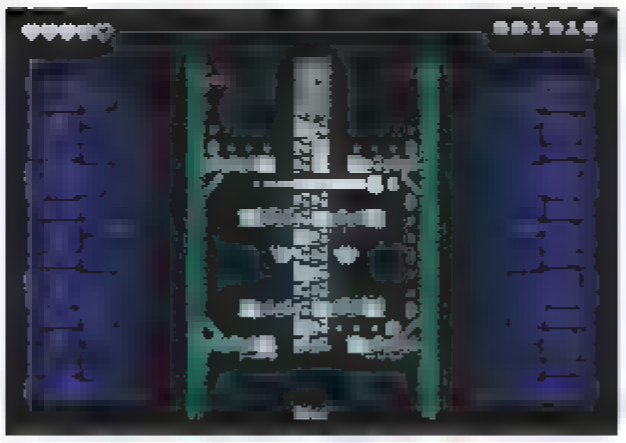
[illegible]

Based on the Puzzle League series from Nintendo, O-Puzz Attack is a fast paced match 3 style game for the Spectrum. Pairs of shapes can be shuffled around within the playfield to form lines which are then removed, bu these matches need to be made quickly because a new ro[illegible] random items is regularly pushed in at the bottom of the well an the game is over if it fills up. Follow Kikstart.me.uk/o-puzz-spe

[illegible]f blasting action is more your thing then Blastopia for the Commodore 64 is a horizontally scrolling shoot-'em-up where chains of enemies must be destroyed. Doing so releases a camel which can grabbed before it falls off screen and a quota of these must be collected before the craft can land to complete the level. Head to Kikstart.me.uk/blastopia-c64

OLD TOWER

- **PLATFORM:** ZX SPECTRUM
- **DEVELOPER:** RETROSOULS **PRICE:** FREE
DOWNLOAD: KIKSTART.ME.UK/OLD-TOWER-SPEC



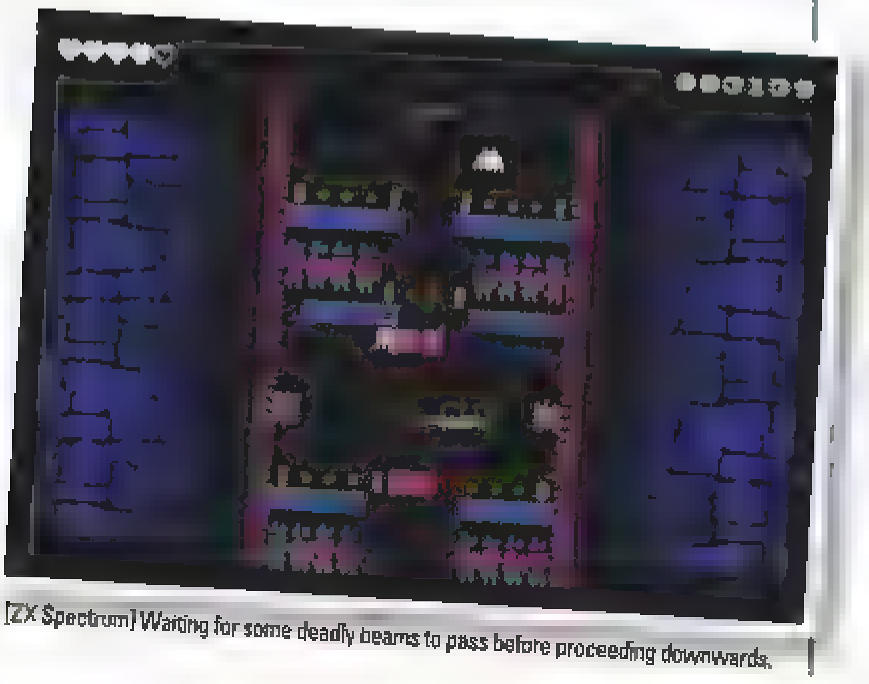
» [Spectrum] Temporarily out of control, bouncing between bumpers while avoiding bats.

Enter the Old Tower but be careful, each level is a puzzle which must be solved to progress and there are deadly hazards lurking around every corner just waiting for unwary adventurers to stumble across them.

To complete each stage a character – or in some cases more than one, with the fire button toggling between them – must be guided to collect all of the priceless riches scattered around the room which in turn will unlock the exit. To make things harder, once the player starts moving, the only thing that will stop their avatar is bumping against something or being killed by spikes or beams from wall-mounted cannons.

Completing each stage therefore takes a combination of lateral thinking, forward planning and fast reactions – especially when dealing with the more devious level layouts – so if you enjoy fast-paced, challenging action puzzles then Old Tower is worth a look.

» Score **90%**



» [ZX Spectrum] Waiting for some deadly beams to pass before proceeding downwards.

SHEEP IT UP

- **PLATFORM:** ATARI 2600 » **DEVELOPER:** DR LUDOS
- **DOWNLOAD:** KIKSTART.ME.UK/SHEEP-UP-2600
- **PRICE:** PAY WHAT YOU WANT DOWNLOAD. $25 CARTRIDGE

A sheep trying to climb upwards by attaching itself to a series of floating strips of Velcro as they bounce back and forth across the sky might seem more than a little strange as game concepts go – we can only assume that the ungulate in question perhaps feels a kinship towards clouds. But Sheep It Up is a tough, no-nonsense game that fits the Atari 2600 well.

The controls are very simple: pressing fire will send the sheep flying upwards from the current strip of Velcro, while left and right on the stick allow for fine tuning of its position in flight. The challenge is to time leaps to safely reach the next attachment point as it and the current one pass and the score increases with each successful transfer. Missing a jump ends the game since the poor sheep plummets to the ground.

» Score **87%**

» [Atari 2600] Heading onwards and upwards whilst looking surprisingly adorable at the same time.

UWOL, QUEST FOR MONEY

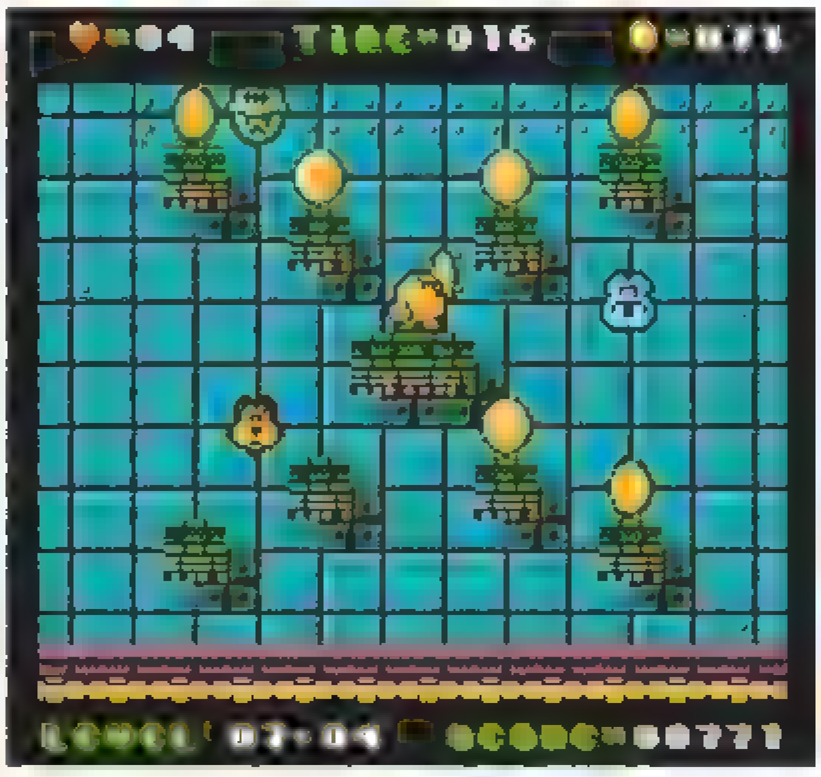
» **PLATFORM:** AMIGA » **DEVELOPER:** PURPLES STUDIOS » **DOWNLOAD:** KIKSTART.ME.UK/UWOL-AMIGA » **PRICE:** FREE

Cute money-grabbing blob Uwol has returned on yet another platform to pillage the Storm Palace in search of fame and, more importantly, fortune. The morally dubious creature must enter the pyramid-shaped facility at the top and work downwards through the treasure rooms, wrapping around to the top if he should complete one at the bottom.

Each room has strange security personnel patrolling it and, if the strict timer is allowed to expire, a ghost is released to hunt intruders down. Uwol's armoured vest will take one hit from an enemy but the next will be fatal if it's not recovered beforehand.

The gameplay is, as with the other versions of Uwol, Quest For Money, very fast and furious, so getting out of the Storm Palace alive with all of those huge gold coins will take some dexterity and skill. It's challenging and sometimes frustrating but enjoyable at the same time.

» Score **89%**



» [Amiga] The Storm Palace's guardians are getting a little cross with Uwol

HOW TO

QUICK GUIDES TO HELP YOU GET THE BEST FROM YOUR GAMES

DIFFICULTY

● ○ ○ ○ ○

LOW

WHAT YOU'LL NEED

- » OLD HARDWARE
- » MODERN TV
- » ONE OF THE FEATURED ADAPTORS

JARGON

» **240p, etc**
A term describing the properties of a video signal. The number indicates the vertical resolution of an image and the letter denotes whether it is progressive or interlaced.

» **Input lag**
The delay between an action and the on-screen response to that action. If this is high, you will start to notice a delay after your button presses. This is often (but not exclusively) caused by your TV's internal processing.

» **Line doubler**
A form of scaler designed to improve image quality by converting a 240p or 480i image to 480p. Formerly popular among home cinema buffs, but generally replaced by more flexible video scalers today. They're great for retro games, though.

» **Scaler**
A device designed to resize video. Upscalers increase the output resolution and downscalers reduce it. Some scalers have fixed output properties, others are flexible video processors designed to resize video while achieving optimum image quality.

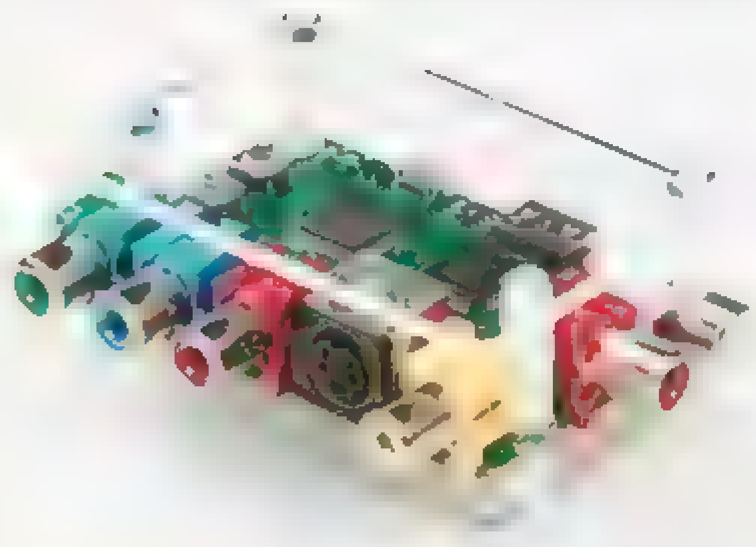
» **Scanlines**
The horizontal lines making up a video display. On a CRT television these can be individually discerned, giving an appearance of alternating lines of video and black. Many devices now offer functions to replicate this quirky effect on modern TVs.

CONNECT RETRO SYSTEMS TO MODERN TVS

With the move away from standard definition input options, hooking your retro systems up to today's TVs can be tricky. We look at the best options

GENERIC HDMI SCALER

These are cheap, but they're not a great option. They add at least four to five frames of input lag and usually treat 240p content as 480i, introducing nasty artefacts like broken shadow effects. Additionally, since they're not designed for retro gaming, you'll lose those sharp pixel edges. This sort of device will do the job of converting most devices to HDMI if your TV doesn't have any legacy input options, but it doesn't do so well – we'd advise other options.



RETROTINK 2X

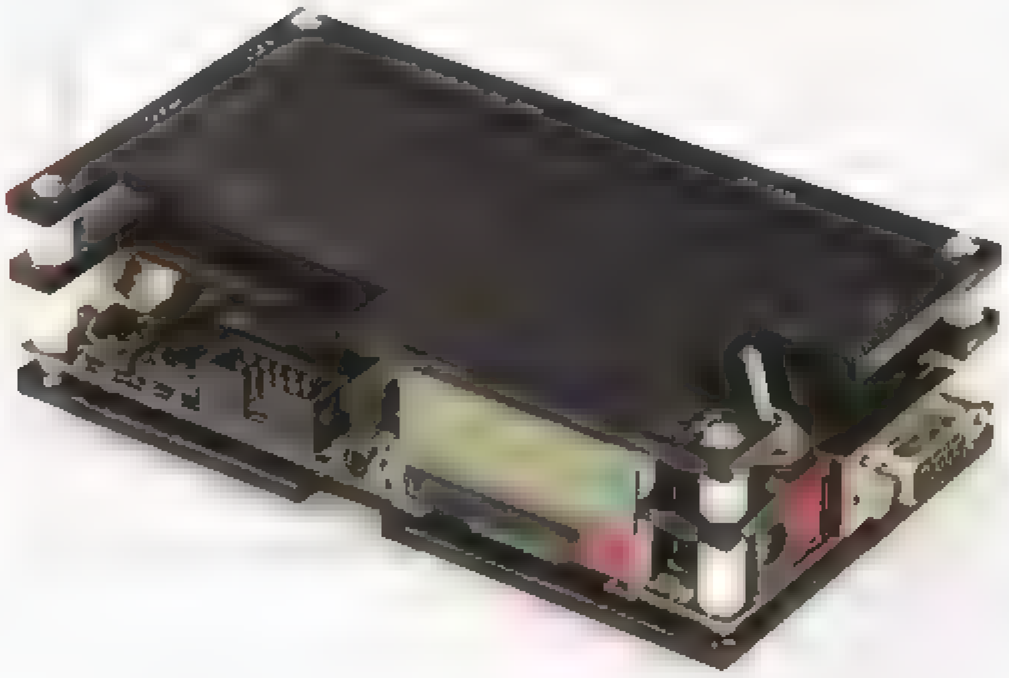
This new device offers support for composite AV, S-video and component connections, and outputs via HDMI. It introduces no perceptible lag and offers a scanline generator for that CRT feel. The RetroTink 2X is also a line doubler, and offers a smoothing filter. 480i content is handled with a simple bob deinterlace that does introduce shimmering. The RetroTink also doesn't handle 480p signals, so you can't use that mode on consoles that support it.

HD RETROVISION

These cables output component YPbPr video at your console's native resolution, and adaptors are available to connect them to a variety of systems including Mega Drive, SNES, PlayStation and Saturn. Although component support is less common today, they're a good choice if your TV does offer it. Because these cables don't upscale the output, it's worth checking how your TV handles scaling before you buy, if possible – especially for 240p content which is often incorrectly processed as 480i.

OPEN SOURCE SCAN CONVERTER

This accepts RGB SCART, component and VGA signals and outputs to your TV via HDMI. It's a line doubler and offers filters plus scanline generation, all with no perceptible lag. The device also offers 3X, 4X and 5X modes for 240p and 2X for 480i/480p content (with bob deinterlacing for 480i), but TV compatibility is not 100 per cent, so check before you buy. The OSSC has improved since we last looked at it, as it now handles audio over HDMI without modification.



WHAT'S NEXT?

Q: Those upscaling boxes are expensive and confusing – is there something simpler I could use?

A: Yes, there are a variety of system-specific products that offer HDMI output which are appearing on the market. Results and prices vary, but they're simple and easy to use. Many original consoles can also be modded for direct HDMI output, and the results are typically of a very high quality. However, while this certainly makes things simpler, it won't make them any cheaper. Each mod is likely to cost you £100 or more for parts and installation, so unless you only have a single favourite retro system, you're better off looking at an upscaler or a clone console that outputs to HDMI.

Q: My modern TV still has legacy inputs. Should I still consider one of these upscaling boxes?

A: They're not essential, but they're often nice to have. Your TV has an internal scaler for standard-definition content, but this is usually optimised for TV and film, rather than games, and they're often slow at performing tasks like upscaling and deinterlacing. Using an external scaler will give the sharp pixel edges that most internal TV scalers would soften, and can reduce input – which can be crucial for rhythm action games.

XRGB MINI FRAMEMEISTER

This is the most compatible upscaler, but also the most expensive – especially since it has been discontinued. It accepts composite AV, S-video, RGB (eight-pin adaptor) and component (D-terminal adaptor), and outputs up to 1080p via HDMI. Scanlines can be added, and there are a variety of modes on offer. It does add a few frames of lag, but is a flexible and fully featured scaler that offers the best handling of 480i content.

RF TO AV

Many old consoles only output analogue RF – unsupported by most upscalers and newer TVs. As a result, you might be tempted by an RF tuner like this. Unfortunately, we tried it with consoles including the Intellivision and Mega Drive and couldn't get it to play nicely, so we can't advocate this model as a solution. Entrepreneurs may find that this is a gap in the market. Until they fill it, you might have some luck hooking up your console via an old VCR.

DON'T FORGET...

- Always check to see if your TV is compatible with your chosen adaptor, and if the adaptor is compatible with the machine you want to use.
- The quality of the HDMI output will depend largely on the quality of your analogue input – nothing is going to magically make composite AV better than RGB SCART.
- Some of these devices can be combined for interesting results – we've used the RetroTink 2X and OSSC to add greater scaling and scanlines to S-video sources.

YOUR QUESTIONS ANSWERED. . .

A selection of smaller questions from readers…

MINI MORALS

With the advent of a yearly mini console, is there a moral obligation to support these systems or do we gear towards Raspberry Pi and other emulations?

Brian M Hooper

There's no moral obligation to buy these consoles, as even the best ones just might not hit the spot for you. Having said that, we've sometimes seen poor reviews of these products used as justification for piracy when there are perfectly acceptable official alternatives, and that's not okay. If you don't like the PlayStation Classic or Neo Geo Mini, that's no excuse to ignore the digital PlayStation releases on the PlayStation store or the Arcade Archives Neo-Geo releases. Ultimately, it's best to support good retro products with your cash when you do see them – if there's no profit in doing them properly, you can bet your bottom dollar that companies will do future ones on the cheap.

NOSTALGIA NOW?

Will we look back as fondly at this generation as we do currently to our 8-bit and 16-bit past?

stulec52

We personally may or may not, but someone inevitably will. Every day, someone plays a videogame for the first time, and those people will grow up and become nostalgic just as we have done. Even then, it's possible to be nostalgic for games you experienced as an adult – just ask Darran about the first time Resident Evil 4 showed up in the games™ office.

EASY MODE

How can I beat hard games?

Daniel ozyer-key

This depends on your moral flexibility. Some people like to pick up a strategy guide, but derive satisfaction from playing the game themselves – and there are plenty of strategy guides out there on GameFAQs, as well as old printed ones on eBay. Other, less scrupulous people will just look up cheats, and the truly irredeemable will buy a dedicated cheating device like the Game Genie or Xploder. Nick finds that being single allows him plenty of time to dedicate himself to practicing games. Though it requires solitude normally experienced by hardened prisoners, as well as almost monastic levels of patience and dedication, he is able to achieve gaming conquest through pure effort alone. Of course, he might achieve similar satisfaction if he'd just develop some interpersonal relationships, but we'll refrain from questioning his life choices – though as ever, you may feel they are too drastic.

COLLECTOR'S CORNER

READERS TAKE US THROUGH THE [illegible] [illegible]

PANZER DRAGOON SAGA

Bought it for €20 in the Noughties. It was a sweet deal even back then, as the game was starting to gain its reputation as the Saturn's holy grail. It's one of my favourite games.

PAID: €20

SEGA MULTI MEGA

"I bought it brand new for €16 back in the day. The same story as with *Terranigma*. I took it out of its box to play it. I also used it as a portable CD player... maybe once. It's not very good for that use."

PAID: €16

BIO

NAME:
Patrik Prusak

FAVOURITE GAME:
The Legend Of Zelda: Breath Of The Wild

ESTIMATED SIZE:
34 systems and roughly 500 games

ESTIMATED VALUE:
€7,000

BEGAN COLLECTING:
1999

UNEARTHED ARCANA

Patrik Prusak takes us inside his collection of curiosities

Speak to a collector and they can likely tell you with pin-perfect accuracy when they began to focus on their collection. Patrik Prusak, who runs a bespoke merchandise company called Apparel & Lovers, began just before the turn of the millennium. "My retro collecting hobby started when I regretted selling my N64 away to buy a Dreamcast in 1999 when it was launched," he tells us. "I decided to never again sell my consoles or games and I also started buying the older consoles. So I bought a second-hand Sega Saturn to start off with."

Although Patrik still had his old NTSC Super Nintendo from 1999, unlike many other collectors who feature here, his collecting isn't based on nostalgia. "I've burnt out of childhood nostalgia ages ago," he laughs. "Instead I'm interested in systems that offer new things to find and learn, such as the Famicom Disk System, PC Engine, JP Saturn and Amiga CD32. Systems that no-one owned back in the days, and information about them was confined to the pages of gaming magazines that would cover import gaming and other unpopular platforms."

It's an interesting approach and it certainly explains the eclectic range of machines that Patrik has chosen to focus on. "I suppose I'm bit of a hipster with my retro collecting – I find excitement in collecting systems that were off the radar for the general gaming public and also were quite often deemed flops. I get enjoyment out of learning and experiencing that even the platforms that were considered flops often offer quality games to play. Also the game portfolios of flopped systems are much smaller in size than on popular consoles, therefore easier to perceive and collect."

Having started his own collecting in the early Noughties, Patrik is well aware of the price barriers that can now exist. "One of the main reasons that made retro game collecting attractive back in the days when I started was that it was an extremely affordable hobby," he continues. "Things are very different now, you need to have deep pockets and an understanding partner. Of course, people who start now could be accustomed to the idea of retro game collecting being an expensive hobby, whereas I'm still living in the mindset that retro game collecting should be affordable."

With that in mind, Patrik's current collecting focus (and something our own editor does) is one that many other readers can also benefit from. "I also tend to focus on 'future retro' platforms," he concludes. "You know, the consoles and games that have interesting titles, and potential to become sought after and valuable in the near future, but are still readily available in the market at more affordable prices, such as the Xbox 360 and Japan-only arcade shooters (prices of these games have been skyrocketing in the recent years, unfortunately) and my latest crush, the PlayStation Vita." ★

SHENMUE II

"I was blown away when I saw the Pal version of *Shenmue II* in the local game shop in 2001. Until then I had been living under the impression it had been cancelled. The Dreamcast is one of my favourite systems, and this one of the most memorable gaming experiences."

Dreamcast
SEGA

PC ENGINE GT

"It's a technological marvel of the time and it's still difficult not to be impressed by it."

PAID: €450

JEWEL IN THE CROWN

[illegible]

BARGAIN HUNT

Your guide to the rising world of retro prices

[illegible] RESIDENT EVIL 2

The great thing about Capcom's game is that it's available on a large number of systems. You can pick up a PAL PlayStation version for **less than £20**. The Dreamcast and GameCube version range from **[illegible]-£50**, while a boxed N64 version can go as high as **£120**.

VIGILANTE

An original PCB board can cost **between £50 and £120**. Home versions are easier on the wallet with the authentic PC Engine version available for **under £20**. Most home computer versions can be had for less than a fiver.

FAST FOOD

You can get the Oliver twins' Pac-Man clone for well **under £5**, so don't pay any more for it.

DIVINE DIVINITY

This is another classic game that is yet to command a high price. We have seen it sell for as little as **£1**.

RUFF 'N' TUMBLE

This excellent Amiga game commands a respectable price. You're winning if you get it for **under £50**.

DOG'S LIFE

You shouldn't have to pay more than **£5** for this. It's well worth hunting it down for that much.

[illegible]

METAL SLUG X

Neo Geo games always attract drama online and this bidding war for the third Metal Slug game was no different. A staggering 77 bids from 11 different bidders pushed the final price to an eye-watering £2,200.

MAILBAG

HAVE YOUR SAY [illegible] WWW.RETROGAMER.NET

WIN!

Every month, one lucky writer-in will receive a spanking copy of either our NES/Master System or SNES/Mega Drive books

THE NES BOOK

STAR LETTER

WON'T SOMEBODY THINK OF THE CHILDREN?

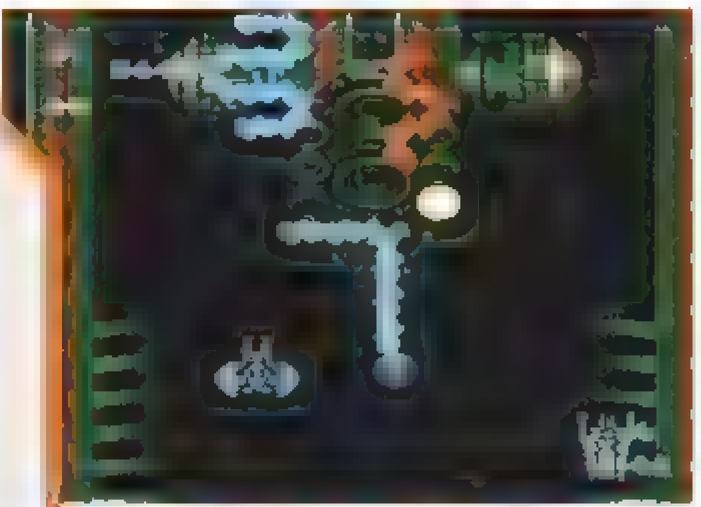
Dear Sir,
While on holiday recently, I watched the varied influx of people who frequented the seafront arcades. One in particular had a good selection of coin-ops and even young children seemed very adept at playing them well.

This set me thinking. The majority of games on the PC and numerous consoles are (quite rightly) age rated. Is it the same for games in the arcades – or can small children legally play the latest shoot-'em-ups and beat-'em-ups despite the violence they will inevitably witness by doing so?

Yours faithfully,
[redacted]

That's a great question. Resident arcade fan Nick, isn't aware of any ratings system in the UK (we've certainly not seen any signs omitting small children in our local arcades) but does know there's a system in the US. It's based around a 'traffic light' system and recent games such as Raw Thrills' Target: Terror has received a red flag for its 'Strong Content' which features 'Life Like Violence'. Have a Sega/NES book on us.

TARGET Terror GOLD



■ PC Engine caravan modes are typically found in shoot-'em-ups like the excellent Gunhed

CARAVAN OF LOVE

Good morning guys,
Earlier this year I started hearing Caravan Mode mentioned in many – mainly British – retro podcasts I listen to. On further investigation I found it was a timed high score mode originating in Japan in the Eighties where Hudson took an actual caravan to shopping centres and ran competitions. Since this discovery I have been running Caravan Mode competitions at the RetroTuesday group I run here in Melbourne. We've run games on the PC Engine, NES, SNES, Mega Drive and Switch hooked up to a projector. Everyone gets involved and we write the scores on a whiteboard for everyone to see.

I haven't been able to find a definitive list of games that include a Caravan Mode but have added games to a list here when I find them. Perhaps you could do an article about this and create that elusive definitive list?
Ma Woods

While we couldn't place our hands on our hearts and tell you about every game with a Caravan Mode, we do think it's a great idea for a feature. Leave it with us and we'll see what we can do.

TIME FOR A CHANGE

Dear **Retro Gamer**,
The many benefits of retro gaming are well documented, but there is one that in my view does not get enough exposure: its positive impact on climate change.

Several recent news articles from reliable sources (E.ON and British Gas) have confirmed what we all already know: modern powerhouses such as the PS4 Pro and Xbox One S consume a lot more electricity than old, retro consoles from the Eighties and Nineties. The two articles have included suggest an increase anywhere between five and tenfold! When you consider the number of hours spent by millions of gamers daily, this cannot be ignored. It is also important to note that old consoles do not have a stand-by mode. When they are off, they consume nothing. Furthermore, modern gaming usually relies on heavy infrastructures (network, servers) that can have a massive carbon footprint. This is simply not the case when firing up your old Mega Drive or NES.

I do realise that there are bigger contributors to climate change, but the above cannot be neglected, and I do hope that one day, proper research is conducted to measure the benefits of retro gaming on climate change. A possible feature in the mag?
[redacted]

It's a fascinating topic that Alix has raised here, and it's certainly worth investigating for yourself. In the meantime, you can read about Alix's findings at the following two links: http://bit.ly/retropower and http://bit.ly/consolecost.

I MADE THIS!

Hi Darran,
As a medium-term reader of your magazine, Load 134 onwards (late to the party, but haven't left since) and enjoying what you guys do each month, I thought I'd share a music video that I've made for one of my songs with you, as hopefully you'll enjoy it or at least where it came from. You can find it on YouTube at youtu.be/7efD5bz ShE

I'm no graphic artist/animator, just an enthusiast, and as I'm never going to write a videogame (this isn't the Eighties), making this video gave me a chance to create a homage to some games I enjoyed growing up though it's not all references – sometimes just whatever was easy to animate!

Anyway, hope you enjoy it if you get a chance to watch it, obviously I'm available for a pull-out special, detailing how a bloke in his thirties sat at home and poured 100 hours into a ridiculous music video, should you

■ Xbox One: Modern games might be great fun, but the consoles they run on aren't very energy efficient

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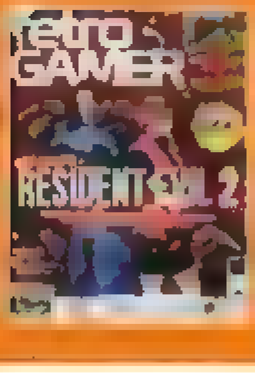

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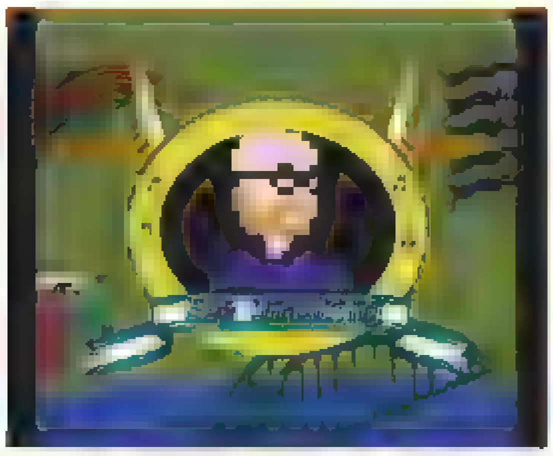

» Andy's video is inspired by everything from Sonic the Hedgehog and Lemmings to Hyper Sports

ever be short on content. Keep up the good work!

Andy K

Thanks Andy, that was really interesting to watch, if a little sad at times. It's always great to hear stories about how a love of gaming during the Eighties and Nineties helps shape people. Keep up the great work.

NEW YORK, NEW YORK

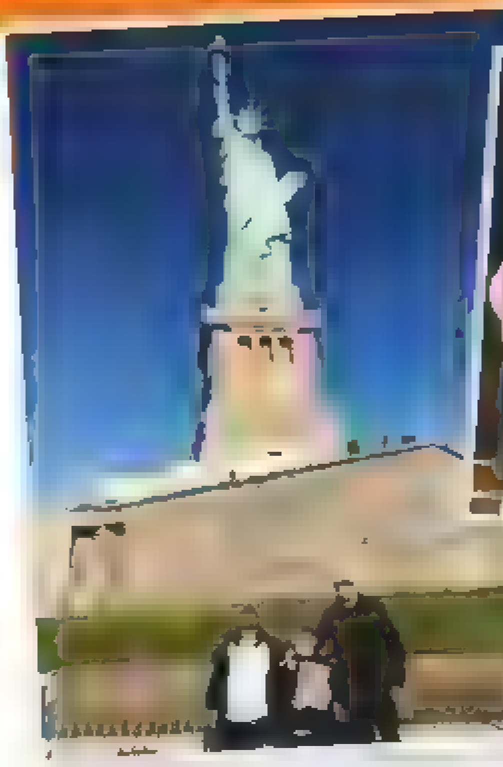
Dear **Retro Gamer**,

I went to America recently and took a copy of Retro Gamer Arcade Classics with me. We went to the Rockefeller Center and The Statue Of Liberty with my niece and nephew. We took some photos there with the magazine and I really hope you could put both pics in the magazine. I'm a big fan of the mag and hope you can do it.

Regards,

Paul

Thanks for the images Paul, it's always nice to see how far our little retro brand travels. It looks like you all had a fantastic time. If anyone else has taken the magazine on an adventure, let us know!



» Paul and his family took Retro Gamer across the Atlantic on a sightseeing tour

The Adventures of RG

The RG team closed out 2018 with its first game of D&D. Dungeon Master Drew shepherded Human Barbarian Barron Scones (Darran), Dragonborn Druid Jakob (Sam) and Warforged Wizard Hickory (Nick) through a goblin-infested cave. Our heroes survived the session, but will they live through the campaign?

Your say

Every month, Retro Gamer asks a question on the forum and prints the best replies. This month we wanted to know...

What's your favourite Resident Evil 2 moment?

Rob Orchard
Hands through wall on the Dreamcast. Terrifying!

Ashley Beeching
I first played *Resident Evil 2* on the Sega Dreamcast, so my memories of the game are inextricably linked to Sega's mighty powerhouse of a console! What happy days of gaming they were!

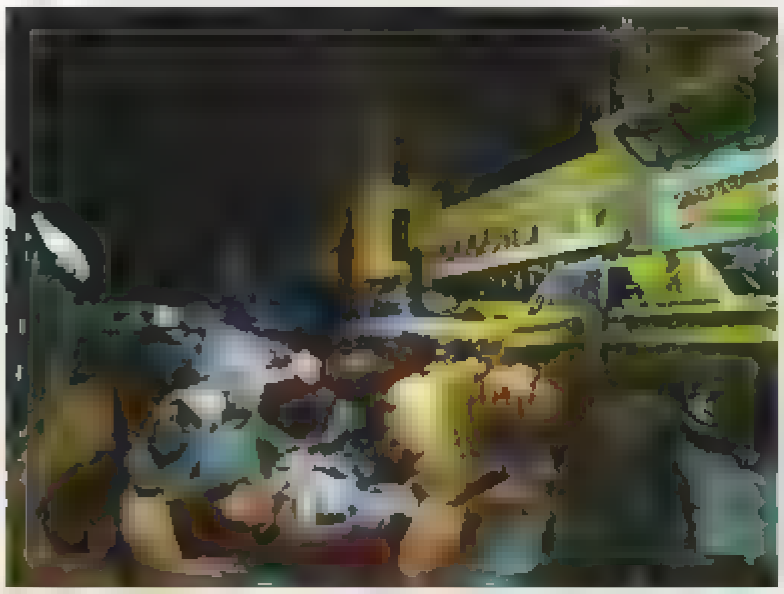
Josh Giannone
Letting the crocodile eat Leon or Claire in the sewer just to see the game over animation

Craig Poland
In the sewer gas canister thrown into crocodile's mouth, one bullet and booom!

Martin Whittington
The opening scenes. When it dawns on you what you are about to face. In comparison to the original *Resident Evil*, the scale just overwhelms everything!

Mark Gleed
I always remember how excited I was when I accidentally discovered you could shoot bullet holes in your TV screen with the shotgun. It was the first 'cheat' I ever found out for myself. I felt like the smartest kid in the world. To me it was like I had discovered fire

Tony Billingham
Playing it all night with my friend and his dad, till around 10am. Realising that we're missing school. His dad rushes us there. And because of the tired state we were in. The teachers accused us sniffing gas and suspended us


» [PlayStation] Unsurprisingly, the zombie-packed classic is a source of undead-themed trauma for many of you

Brian M Hooper
Discovering Tofu for the first time. My mind was buzzing at the prospect of a zombie vs a tofu waving a blade in his face

Andrea Aiossi
I bought a Japanese edition of the first *Resident Evil* just to play the *Resident Evil 2* demo.

Chris Legg
The absurd power and recoil of Leon's custom shotgun. Like a clap of thunder every time you fired it

retro GAMER

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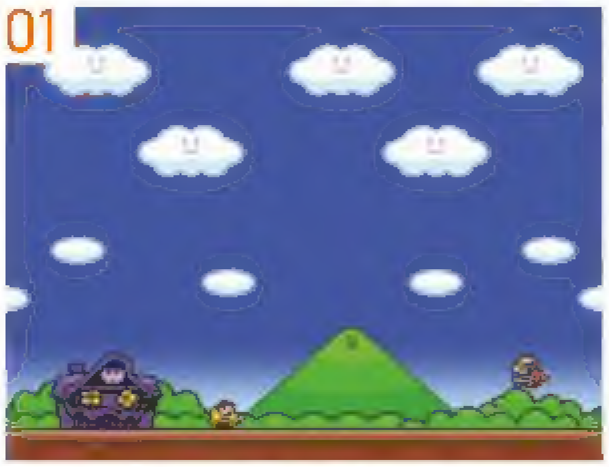
MARIO & WARIO

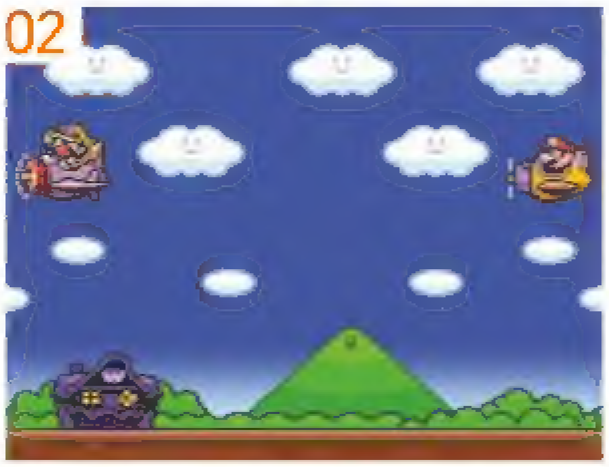
» Before turning its capable hands to some handheld monster-battling RPG (Pocket Monsters, or something like that?), Game Freak developed this mouse-driven puzzle game that ended up exclusive to Japan. That regional exclusivity is a shame, because Mario & Wario is actually a rather fun puzzle game – at least up until the ending, when Mario decides that he's had enough of being a hero and takes some decidedly villainous vengeance

01



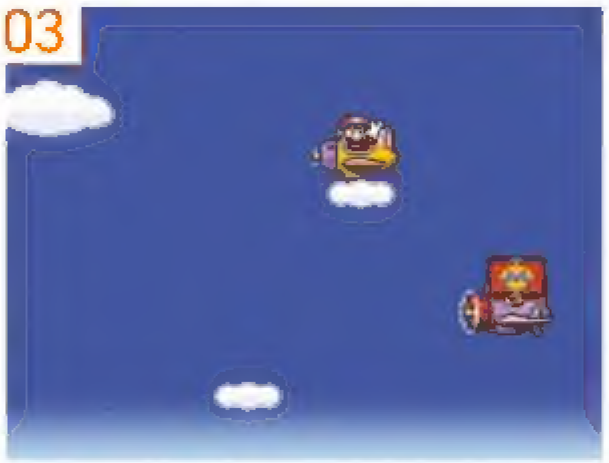
» Wario takes off in his plane, hoping to go on a relaxing vacation somewhere sunny. But since he's spent the last few weeks playing pranks on Mario by putting a bucket on his head, he's chased by the crimson-suited plumber.

02



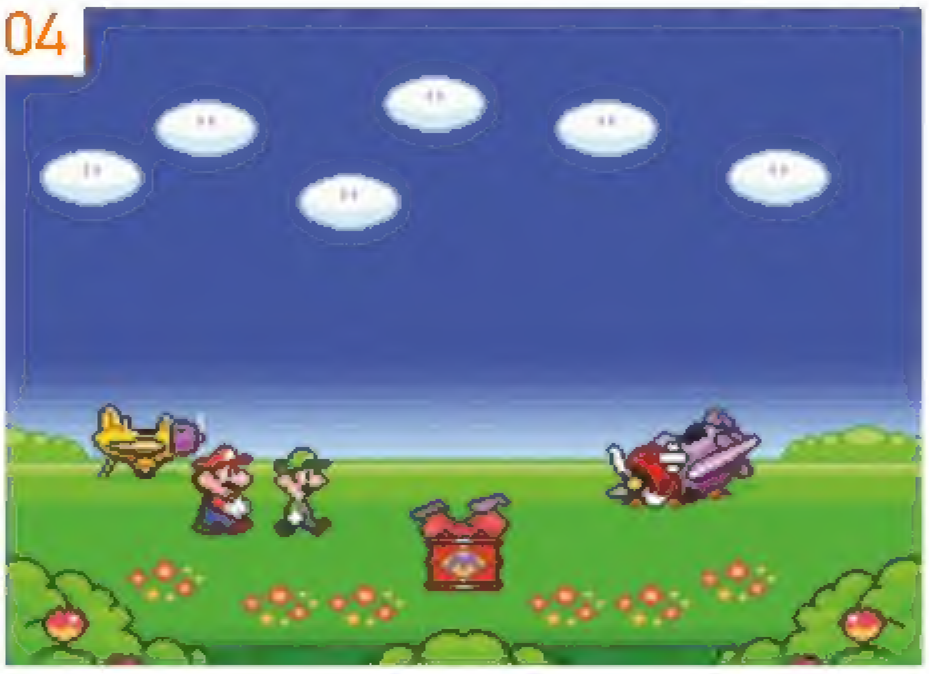
» Initially, it appears that Mario's efforts are in vain as he lags behind his greedy doppelganger. But our hero is clearly faster in the air than he is on the ground, as Mario soon catches up to Wario and even climbs overhead.

03



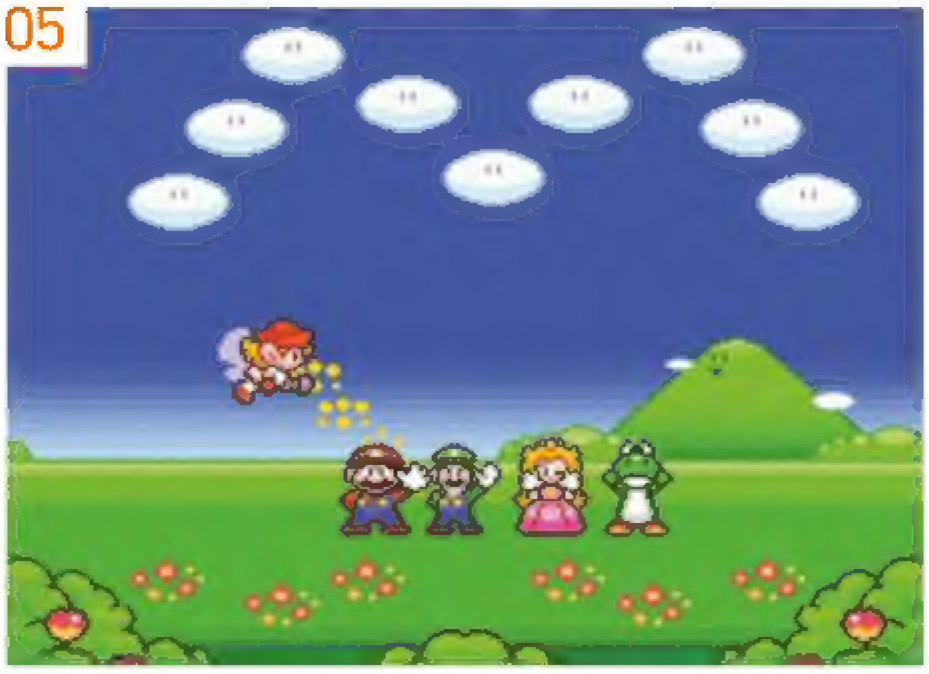
» But here's where things turn a but sinister. You see, Mario's line of thinking is that Wario deserves a bucket on his head – and if that happens to be while he's flying a plane, so be it. No, Mario! Don't do it!

04



» Too late. Wario's vehicle is now a twisted wreck, and Wario himself is wedged firmly into the bucket, twitching and gravely injured. But Mario callously walks past and leaves Wario for dead, with Luigi apparently wholly unconcerned with the fact that his brother has just committed a very serious crime.

05



» The siblings celebrate with Peach and Yoshi, as if this is a happy occasion – like they'd murdered a serious miscreant, instead of a prankster. Wario's contributions as a doubles partner in tennis, and a fourth player in board game parties, so easily tossed aside. The Mushroom Kingdom is a rotten place, folks.

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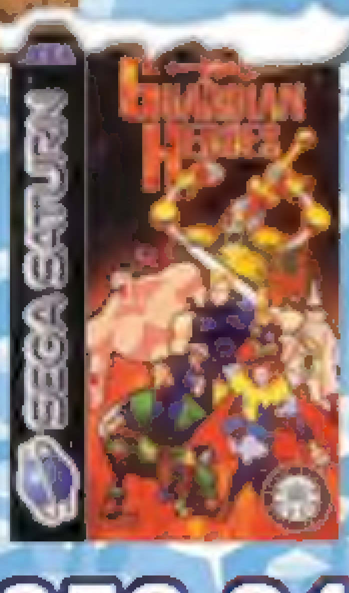
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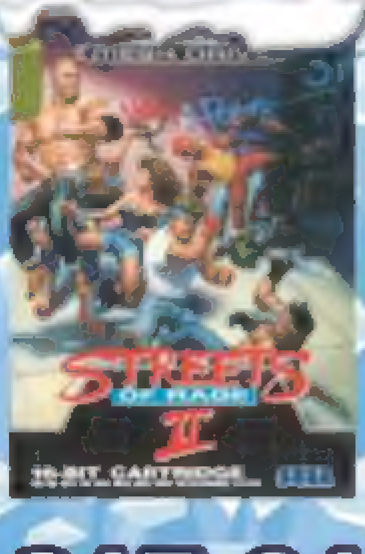
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